UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)	Docket Nos. ER06-615	and
Operator Corporation)	ER08	000

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FILING OF FOURTH REPLACEMENT VERSION OF FERC ELECTRIC TARIFF

VOLUME 3 OF 7

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31 Day-Ahead Market.

The DAM consists of the following functions performed in sequence: the MPM-RRD, IFM, and RUC. Scheduling Coordinators may submit Bids for Energy, Ancillary Services and RUC Capacity for an applicable Trading Day. The CAISO shall issue Schedules for all Supply and Demand, including Participating Load, pursuant to their Bids as provided in this Section 31.

31.1 Bid Submission and Validation in the Day-Ahead Market.

Bids, including Self-Schedules and Ancillary Services Bids, and Submissions to Self-Provide an Ancillary Service shall be submitted pursuant to the submission rules specified in Section 30. Scheduling Coordinators submit a single Bid to be used in the DAM, which includes the MPM-RRD, the IFM and RUC. Scheduling Coordinators may submit Bids for the DAM as early as seven (7) days ahead of the targeted DAM and up to Market Close of the DAM for a targeted Trading Day. The CAISO will validate all Bids submitted to the DAM pursuant to the procedures set forth in Section 30.7. Scheduling Coordinators must submit Bids for participation in the IFM for Resource Adequacy Capacity as required in Section 40.

31.2 Market Power Mitigation and Reliability Requirement Determination (MPM-RRD).

After the Market Close of the DAM, and after the CAISO has validated the Bids pursuant to Section 30.7, the CAISO will perform the MPM-RRD procedures in a series of processing runs that occur prior to the IFM Market Clearing run. The MPM process determines which Bids need to be mitigated in the IFM. The RRD process is the automated process for determining RMR Generation requirements for RMR Units. The MPM-RRD process optimizes resources using the same optimization used in the IFM, but instead of

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using Demand Bids as in the IFM the MPM-RRD process optimizes resources to meet one hundred percent of the CAISO Demand Forecast and Export Bids to the extent the Export Bids are selected in the MPM-RRD process, and meet one hundred percent of Ancillary Services requirements based on Supply Bids submitted to the DAM. The pool of resources identified in the MPM-RRD process is then passed to the IFM to constitute the pool of resources available for commitment in the IFM. The CAISO performs the MPM-RRD for the DAM for the twenty-four (24) hours of the targeted Trading Day.

31.2.1 The Reliability and Market Power Mitigation Runs.

The first run of the MPM-RRD procedures is the Competitive Constraints Run (CCR), in which only limits on transmission lines pre-designated as competitive are enforced. The only RMR Units considered in the CCR are Condition 1 RMR Units that have provided market Bids for the DAM. The second run is the All Constraints Run (ACR), during which all transmission Constraints are enforced. All RMR Units, Condition 1 and Condition 2, are considered in the ACR. The resources committed in the ACR form the pool of resources that is available for commitment in the IFM.

31.2.2 Bid Mitigation.

The CAISO shall compare the resource dispatch levels derived from CCR and ACR and will mitigate Bids as follows.

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31.2.2.1 RMR Units.

For a Condition 1 RMR Unit that is dispatched in the CCR, the Bid used in the ACR for the entire portion of the unit's Energy Bid Curve above the CCR dispatch level and below the Maximum Net Dependable Capacity specified in the RMR Contract will be set to the lower of the RMR Proxy Bid, or the DAM Bid, but not lower than the unit's highest Bid price that cleared the CCR. If a Condition 1 RMR Unit is dispatched in the CCR and receives a greater dispatch in the ACR, the entire portion of the unit's Energy Bid Curve above the CCR dispatch level and below the Maximum Net Dependable Capacity specified in the RMR Contract, will be set to the lower of the RMR Proxy Bid or the DAM Bid, but not lower than the unit's highest Bid price that cleared the CCR for purposes of being considered in the IFM. For purposes of the MPM-RRD, Condition 1 RMR Units will be treated like non-RMR Units with respect to any capacity in excess of the Maximum Net Dependable Capacity specified in the RMR Contract. For Condition 1 RMR Units, the market Bid at and below the CCR dispatch level will be retained in the IFM. For Condition 2 RMR Units and for Condition 1 RMR Units that either did not submit DAM Bids or submitted DAM Bids but were not dispatched in the CCR, the CAISO will use the RMR Proxy Bid in the ACR to determine the Energy required from RMR Units for each Trading Hour. If the dispatch level produced through the ACR for a Condition 1 RMR Unit is not greater than the dispatch level produced through CCR, the unit's original, unmitigated DAM Bid will be retained in its entirety. For a Condition 1 RMR Unit, if the dispatch level produced through the ACR is greater than the dispatch level produced through the CCR, and for a Condition 2 RMR Unit that is dispatched through the ACR, the resource will be flagged as an RMR Dispatch in the Day-Ahead Schedule and shall constitute a Dispatch Notice pursuant to the RMR Contract.

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31.2.2.2 Non-RMR Units.

If the dispatch level produced through the ACR is greater than the dispatch level produced through CCR, then the resource is subject to Local Market Power Mitigation, in which case the entire portion of the unit's Energy Bid Curve that is above the CCR dispatch level will be mitigated to the lower of the Default Energy Bid as specified in Section 39, or the DAM Bid, but no lower than the unit's highest Bid price that cleared the CCR.

31.3 **Integrated Forward Market.**

After the MPM-RRD and prior to RUC, the CAISO shall perform the IFM. The IFM performs Unit Commitment and Congestion Management, clears the Energy Bids as modified and in the MPM-RRD, taking into account transmission limits and honoring technical and inter-temporal operating Constraints. such as Minimum Run Times, and procures Ancillary Services to meet one hundred percent (100%) of the CAISO Forecast of CAISO Demand requirements. The IFM utilizes a set of integrated programs that: (1) determine Day-Ahead Schedules and AS Awards, and related LMPs and ASMPs; and (2) optimally commits resources that are bid in to the DAM. The IFM utilizes a SCUC algorithm that optimizes Start-Up Costs, Minimum Load Costs, and Energy Bids along with any Bids for Ancillary Services as well as Self-Schedules submitted by Scheduling Coordinators. The IFM also provides for the optimal management of Use-Limited Resources. The ELS Resources committed through the ELC Process conducted two days before the day the IFM process is conducted for the next Trading Day as described in Section 31.7 are binding and the IFM process will model such capacity as capacity that is under a contractual obligation to provide.

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31.3.1 Market Clearing and Price Determination.

31.3.1.1 Integrated Forward Market Output.

The IFM produces: (1) a set of hourly Day-Ahead Schedules, AS Awards, and AS Schedules for all participating Scheduling Coordinators that cover each Trading Hour of the next Trading Day; and (2) the hourly LMPs for Energy and the ASMPs for Ancillary Services to be used for settlement of the IFM. The CAISO will publish the LMPs at each PNode as calculated in the IFM. In determining Day-Ahead Schedules, AS Awards, and AS Schedules the IFM optimization will minimize total Bid Costs based on submitted and mitigated Bids while respecting the operating characteristics of resources, the operating limits of transmission facilities, and a set of scheduling priorities that are described in Section 31.4. In performing its optimization, the IFM first tries to complete its required functions utilizing Economic Bids without adjusting Self-Schedules, and adjusts Self-Schedules only if it is not possible to balance Supply and Demand and manage Congestion with available Economic Bids. The Day-Ahead Schedules are binding commitments, including the commitment to Start-Up, if necessary, to comply with the Day-Ahead Schedules. The CAISO will not issue separate Start-Up Instructions for Day-Ahead commitments. A resource's status, however, can be modified as a result of additional market processes occurring in HASP, STUC and RTUC. In addition, in Real-Time, resources are required to follow Real-Time Dispatch Instructions.

31.3.1.2 Treatment of Ancillary Services Bids in IFM.

As provided in Section 30.7.6.2 the CAISO shall co-optimize the Energy and Ancillary Services Bids in clearing the IFM. To the extent that capacity subject to an Ancillary Services Bid submitted in the Day-Ahead Market is not associated with an Energy Bid, there is no co-optimization, and therefore, no opportunity cost associated with that resource for that Bid for the purposes of calculating the Ancillary Services Marginal Price as specified in Section 11.10.11. When the capacity associated with the Energy Bid overlaps with the quantity submitted in the Ancillary Services Bid, then the Energy Bid will be used to determine the opportunity cost, if any, in the co-optimization to the extent of the overlap. Therefore, the capacity that will be considered when co-optimizing the procurement of Energy and Ancillary Services from Bids in the IFM will consider capacity up to the total capacity of the resource as reflected in the Ancillary Services Bid as derated through SLIC, if at all. In the case of Regulation, the capacity that will be considered is the lower of the capacity of the resource offered in the Ancillary Services Bid or the upper Regulation limit of the highest Regulating Range as contained in the Master File.

31.3.1.3 Reduction of LAP Demand.

To the extent the CAISO cannot resolve a non-competitive transmission Constraint utilizing effective Economic Bids such that Load at the LAP level in the pre-IFM pass 2 (ACR) would otherwise be adjusted to relieve the Constraint, the CAISO will take the following actions in sequence:

Step 1: Schedule the Energy from Self-Provided Ancillary Service Bids from capacity that is obligated to offer an Energy Bid under a must-offer obligation such as from an RMR Unit or a Resource Adequacy Resource. Since the otherwise Self-Provided Ancillary Services capacity in question is under a must-offer obligation, the associated Energy Bid prices will be either: (a) submitted Energy Bids; or (b) Default Energy Bids to the extent an Energy Bid was not submitted for the Self-Provided Ancillary Services capacity, but not lower than any Energy Bids from the same resource that may have cleared pre-IFM pass 1 (ACR).

Step 2: In case the measure in Step 1 is insufficient to avoid adjustment of Load at the LAP level, the CAISO will evaluate the validity of the binding transmission Constraint and if it is determined that the Constraint can be relaxed based on the operating practices, will relax the Constraint consistent with operating practices. The CAISO will use the following rules in relaxing the transmission Constraints in this step 2:

- (a) No Constraints on WECC rated paths or Interties with adjacent Balancing Authority Areas would be relaxed.
- (b) Only the transmission Constraints that can be mitigated in the Real-Time Market or Real-Time operation are candidates for Constraint relaxation. The criteria used to assess whether or not the Constraint can be mitigated in Real-Time can include, but are not limited to, the following: (1) there is a Submission to Self-Provide an Ancillary Service for Operating Reserves from non-Resource Adequacy Resources or non-RMR Units within the transmission constrained Load pocket constrained by the transmission path in question; provided, however, such Submissions to Self-Provide an Ancillary Service cannot be used in Step 1, but are available in Real-Time; (2) Scheduling Coordinators have submitted Self-Schedules for Participating Load in the constrained Load pocket; or (3) there are non-Resource Adequacy Resources and non-RMR Units within the constrained Load pocket that did not participate in the Day-Ahead Market but can be called upon under their Participating Generator Agreement before the CAISO curtails firm Load.

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- (c) Candidate Constraints will be relaxed by assigning a high penalty for Constraint violation (as opposed to enforcing them as hard Constraints) in this Step 2. Such penalty will be lower than the penalty for curtailing firm (Price Taker) Load.
- (d) The higher of the facility rating or the pre-IFM flows through the facility with relaxed Constraints in this Step 2 will be used as hard limits in IFM.
- (e) To avoid unwarranted price impact in IFM, a Constraint violation penalty equal to three times the prevailing Energy Bid cap as specified in Section 39.6 will be applied to the Constraints relaxed in Step 2 between their operating limit and the relaxed limit determined.
- (f) The information relating to the relaxed Constraints will be forwarded to the CAISO Operator together with the necessary mitigating measures.

Step 3: In case the measures in Step 1 and Step 2 are insufficient, the CAISO may "soften" the LDF Constraints on a Node or sub-LAP basis, i.e., adjust Load at individual Nodes or, in aggregate, a group of Nodes to relieve the Constraint in such a way that minimizes the quantity of load curtailed. The adjustment to Load at individual Nodes shall be facilitated by adjustment and renormalization of applicable LDFs.

31.3.2 **Congestion and Transmission Losses Cost Determination.**

Except for those transactions exempt from such charges as specified in Section 11.2.1.5, Scheduling Coordinators will be responsible for MCC and MCL as specified in Section 27.1. The CAISO will determine the Marginal Losses surplus it has collected and will allocate such revenues to Scheduling Coordinators as described in Section 11.2.1.6.

31.3.3 Metered Subsystems.

In clearing the IFM, the CAISO will not enforce Constraints within each MSS. The Full Network Model (FNM) includes a full model of MSS transmission networks used for power flow calculations and Constraint management in the IFM and RTM. Network Constraints (i.e. circuit ratings, thermal ratings, etc.) within the MSS, or at its boundaries, shall be monitored but not enforced in the CAISO's FNM. If overloads are observed in the forward markets that are internal to the MSS or at the MSS boundaries and are attributable to MSS operations, the CAISO shall communicate such events to the Scheduling Coordinator for the MSS and coordinate any manual Redispatch required in Real-Time. If, independent of the CAISO, the Scheduling Coordinator for the MSS is unable to resolve Congestion internal to the MSS or at the MSS boundaries in Real-Time, the CAISO will use Exceptional Dispatch Instructions on resources that have been bid into the HASP and RTM to resolve the Congestion. Such costs will be allocated pursuant to the provisions specified in Section 11.5.6.2.5.2. The CAISO and MSS Operator shall develop specific procedures for each MSS to determine how network Constraints will be handled. Costs associated with internal Congestion and Transmission Losses in the MSS will be the responsibility of the MSS Operator. The Scheduling Coordinator for the MSS shall be responsible for payment of Marginal Losses for transactions at any points of interconnection between the MSS and the CAISO Controlled Grid, and for the delivery of Energy to the MSS or from the MSS in accordance with the CAISO Tariff. For MSS Operators that elect Load following, the CAISO shall exclude the effect of Transmission Losses in the relevant MSS in the CAISO's calculation of loss sensitivity factors used to calculate LMPs.

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31.4 Uneconomic Adjustments in the IFM.

All Self-Schedules are respected by SCUC to the maximum extent possible and are protected from curtailment in the Congestion Management process to the extent that there are Economic Bids that can relieve Congestion. If all Economic Bids in the IFM are exhausted, resource Self-Schedules between the resource's Minimum Load and the first Energy level of the first Energy Bid point will be subject to uneconomic adjustments based on the scheduling priorities listed below. Through this process, imports and exports may be reduced to zero, Demand Bids may be reduced to zero, Price Taker Demand (LAP load) may be reduced, and Generation may be reduced to a lower operating limit (or Regulation Limit) (or to a lower Regulation Limit plus any qualified Regulation Down award or Self-Provided Ancillary Services, if applicable). Any Self-Schedules below the Minimum Load level are treated as fixed Self-Schedules and are not subject to uneconomic adjustments for Congestion Management. The provisions of this section shall apply only to the extent they do not conflict with any MSS Agreement. The scheduling priorities for the IFM from highest priority (last to be adjusted) to lowest priority (first to be adjusted) are as follows:

- (a) Reliability Must Run (RMR) Generation pre-dispatch reduction;
- (b) Day-Ahead TOR Self-Schedules (balanced demand and supply reduction);
- (c) Day-Ahead ETC Self-Schedules (balanced demand and supply reduction); different ETC priority levels will be observed based upon global ETC priorities provided to the CAISO by the Responsible PTOs;

- (d) Other Self-Schedules of CAISO Demand reduction subject to Section 31.3.1.3, exports explicitly identified in a Resource Adequacy Plan to be served by Resource Adequacy Capacity explicitly identified and linked in a Supply Plan to the exports, and Self-Schedules of exports at Scheduling Points explicitly sourced by non-Resource Adequacy Capacity;
- (e) Self-Schedules of exports at Scheduling Points not explicitly sourced by non-Resource Adequacy Capacity, except those exports explicitly identified in a Resource Adequacy Plan to be served by Resource Adequacy Capacity explicitly identified and linked in a Supply Plan to the exports as set forth in Section 31.4(d);
- (f) Day-Ahead Regulatory Must-Run Generation and Regulatory Must-TakeGeneration reduction;
- (g) Other Self-Schedules of Supply reduction; and
- (h) Economic Bids of Demand and Supply.

31.5 Residual Unit Commitment.

The CAISO shall perform the RUC process after the IFM. In the event that the IFM did not commit sufficient resources to meet the CAISO Forecast of CAISO Demand and account for other factors such as Demand Forecast error, as described in the Business Practice Manuals, the RUC shall commit additional resources and identify additional RUC Capacity to ensure sufficient on-line resources to meet Demand for

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each hour of the next Trading Day. RUC Capacity is selected by a SCUC optimization that uses the same FNM used in the IFM to help ensure the deliverability of Energy from the RUC Capacity.

31.5.1 RUC Participation.

31.5.1.1 Capacity Eligible for RUC Participation.

RUC participation is voluntary for capacity that has not been designated as Resource Adequacy Capacity. Scheduling Coordinators may make such capacity available for participation in RUC by submitting a RUC Availability Bid, provided the Scheduling Coordinator has also submitted an Energy Bid for such capacity into the IFM. Capacity from Non-Dynamic System Resources that has not been designated Resource Adequacy Capacity is not eligible to participate in RUC. Capacity from resources including System Resources that has been designated as qualified Resource Adequacy Capacity must participate in RUC. RUC participation is required for Resource Adequacy Capacity to the extent that Resource Adequacy Capacity is not committed following the IFM. System Resources eligible to participate in RUC will be considered on an hourly basis; that is, RUC will not observe any multi-hour block constraints and the Energy Limits that may have been submitted in conjunction with Energy Bids to the IFM. RMR Unit capacity will be considered in RUC in accordance with Section 31.5.1.3. MSS resources may participate in RUC in accordance with Section 31.5.2.3. COG resources are accounted for in RUC, but may not submit or be paid RUC Availability Payments. The ELS Resources committed through the ELC Process conducted two days before the day the RUC process is conducted for the next Trading Day as described in Section 31.7 are binding and the RUC process will model such capacity as capacity that is under a contractual obligation to provide.

31.5.1.2 RUC Availability Bids.

Scheduling Coordinators may only submit RUC Availability Bids for capacity (above the Minimum Load) for which they are also submitting an Energy Bid to participate in the IFM. The RUC Availability Bid for the Resource Adequacy Capacity submitted by a Scheduling Coordinator must be \$0/MW per hour for the entire Resource Adequacy Capacity. If the Scheduling Coordinator fails to submit a \$0/MW per hour for

Resource Adequacy Capacity, the CAISO will insert the \$0/MW per hour for the full amount of Resource Adequacy Capacity for a given resource. Scheduling Coordinators may submit non-zero RUC Availability Bids for the portion of a resource's capacity that is not Resource Adequacy Capacity.

31.5.1.3 RMR Generation Resources.

If a resource is determined to have an RMR Generation requirement for any Trading Hour of the next day, either by the MPM-RRD process or by the CAISO through a manual RMR Dispatch Notice, and if any portion of the RMR Generation requirement has not been cleared in the IFM, the entire portion of the RMR Generation requirement will be represented as a RMR Generation Self-Schedule in the RUC.

31.5.2 Metered Subsystem RUC Obligation.

MSS Operators are permitted to make an annual election to opt-in or opt-out of RUC participation. MSS Operators that elect to Load follow are automatically considered to opt-out of the RUC participation. Prior to the deadline for the annual CRR Allocation and CRR Auction process, as specified in Section 36, an MSS Operator that has selected not to Load follow shall notify the CAISO of its RUC participation option for the following CRR cycle.

31.5.2.1 MSS Operator Opts-In to RUC Procurement.

If the MSS Operator opts-in to the RUC procurement process, the Scheduling Coordinator for the MSS will be treated like any other Scheduling Coordinator that submits a Bid in the DAM with respect to RUC procurement by the CAISO and allocation of RUC costs. The CAISO will consider the CAISO Demand Forecast of the MSS Demand in setting the RUC procurement target, and the Scheduling Coordinator for the MSS will be responsible for any applicable allocation of costs related to the Bid Cost Recovery for RUC as provided in Section 11.8.

31.5.2.2 MSS Operator Opts-out of RUC Procurement.

If an MSS Operator opts out of the RUC procurement process, the CAISO shall not consider the CAISO Demand Forecast of the MSS Demand in setting the RUC procurement target, and will not commit

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resources in RUC to serve the MSS Demand. The MSS Operator shall be responsible for meeting the Supply requirements for serving its Demand in accordance with this Section 31.5.2.2, and it will be exempt from the allocation of costs related to the Bid Cost Recovery for RUC as provided in Section 11.8. The MSS that opts out of the CAISO's RUC procurement will have two options for meeting the Supply requirements for serving its Demand, which it will select on an hourly basis depending on how it submits Self-Schedules for its Demand in the DAM.

31.5.2.2.1 Based on CAISO Demand Forecast.

If the Scheduling Coordinator for the MSS submits Hourly Demand Self-Schedules in the DAM that are greater than or equal to the CAISO Demand Forecast for the MSS Demand, the Scheduling Coordinator will have met its Supply requirement for such hours and will be exempt from the allocation of costs related to the Bid Cost Recovery for RUC as provided in Section 11.8.

31.5.2.2.2 Not Based on CAISO Demand Forecast.

If the Scheduling Coordinator for the MSS submits Hourly Demand Self-Schedules in the DAM that are less than the CAISO Demand Forecast for the MSS Demand, the Scheduling Coordinator will be exempt from the RUC cost allocation but will be monitored for its compliance with the Supply requirement based on the following performance criteria. If the MSS Demand Self-Schedule in the IFM for a given Trading Hour is less than the CAISO Demand Forecast for the MSS Demand and less than the actual metered Demand of the MSS for that Trading Hour, then penalty points will be accrued as follows: (i) if the difference between the actual metered Demand and the IFM Self-Schedule in any hour is greater than the lesser of two percent (2%) of the CAISO Demand Forecast for the MSS or five (5) MW, but less than the lesser of five percent (5%) or ten (10) MW, then the Scheduling Coordinator for the MSS will have one (1) penalty point against it for each occurrence; (ii) if the difference in any hour is more than the lesser of five percent (5%) or ten (10) MW, but less than the lesser of ten percent (10%) or twenty (20) MW, then the Scheduling Coordinator for the MSS will have two (2) penalty points against it for each occurrence; (iii) if

the difference in any hour is more than the lesser of ten percent (10%) or twenty (20) MW, then the Scheduling Coordinator for the MSS will have five (5) penalty points against it for each occurrence. The maximum penalty points that can be accrued during a single Trading Day for each MSS will be five (5). A total of more than twenty (20) penalty points within twelve (12) consecutive months will require the MSS to opt-in to RUC for the remainder of the CRR Annual Cycle and for the following CRR Annual Cycle. The provisions in this Section 31.5.2.2.2 do not apply to an MSS Operator that has elected to Load follow, and only apply to non-Load following MSS Operators.

31.5.2.3 MSS Option to Bid RUC Capacity.

The Scheduling Coordinator for the MSS Operator may submit RUC Availability Bids for the capacity of MSS resources and receive RUC Availability Payments and other RUC Compensation for such capacity selected in RUC, subject to the same bidding and operational requirements as any other resources providing RUC Capacity. This capability is not affected by the MSS Operator's decision to opt-in to or opt-out of RUC per Sections 31.5.2.1 and 31.5.2.2.

31.5.3 RUC Procurement Target.

The procurement target for RUC in any given Trading Hour will be determined based on the next day's hourly CAISO Forecast of CAISO Demand less the Energy scheduled in the Day-Ahead Schedule, and accounting for other factors, as appropriate, such as Demand Forecast error and estimated incremental HASP Bids including those from Participating Intermittent Resources. The adjustments listed in Sections 31.5.3.1 to 31.5.3.6 will be made to the CAISO Forecast of CAISO Demand to account for the conditions as provided therein. Adjustments may be made on a RUC Zone basis to ensure that RUC results in adequate local capacity procurement. The RUC procurement target-setting procedure is designed to meet the requirements of reliable grid operation without unnecessary over-procurement of RUC Capacity or over-commitment of resources. Additional detail on the process for setting the RUC procurement target is specified in the Business Practice Manuals.

31.5.3.1 CAISO Operator Review & Adjustment.

The CAISO Operator reviews the CAISO Forecast of CAISO Demand and all calculated adjustments as provided in Sections 31.5.3.2 through 31.5.3.6. The CAISO Operator shall accept, modify, or reject such adjustments based on Good Utility Practice. If the CAISO Operator determines it must modify or reject adjustments, the CAISO Operator shall log sufficient information as to reason, Operating Hour, and specific modification(s) made to the calculated adjustments.

31.5.3.2 Demand Response Adjustments.

The CAISO shall account for Demand response that is clearly communicated to the CAISO as certain to be curtailed for the next Trading Day only for the two following types of Demand response: 1) Demand response triggered by a staged System Emergency event; and 2) Demand response that is triggered by a price or an event known in advance. If an LSE informs the CAISO of anticipated Demand response prior to Market Close of the DAM, the CAISO Forecast of CAISO Demand used as the RUC procurement target will be reduced accordingly.

31.5.3.3 MSS Adjustment.

As specified in section 31.5.2.1, MSS Operators are permitted to make an annual election to opt-in or opt-out of RUC participation. If the MSS Operator opts-in to the RUC procurement process, the CAISO considers the CAISO's Demand Forecast of the MSS Demand in setting the RUC procurement target. If an MSS Operator opts-out of the RUC procurement process, the CAISO does not consider the CAISO's Demand Forecast of the MSS Demand in setting the RUC procurement target. An MSS Operator that has elected to opt-out of RUC, or has elected to Load follow and therefore has also elected to opt-out of RUC, is required to provide sufficient resources in the Day-Ahead Market, and in the case of a Load following MSS Operator, follow its Load within the MSS Deviation Band. To reflect these options and to prevent committing additional capacity or resources for any differences between the CAISO Demand Forecast for the MSS and the MSS Self-Scheduled quantities in the IFM, the CAISO replaces the CAISO Demand Forecast for such MSS with the quantity of Demand in Self-Schedules submitted by the Scheduling Coordinator for the MSS in the IFM.

31.5.3.4 Eligible Intermittent Resource Adjustment.

Scheduling Coordinators for Eligible Intermittent Resources may submit Bids, including Self-Schedules, in the Day-Ahead Market and the quantity ultimately scheduled from Eligible Intermittent Resources may differ from the CAISO forecasted deliveries from the Eligible Intermittent Resources. The CAISO may adjust the forecasted Demand either up or down for such differences by RUC Zone in which the Eligible Intermittent Resource resides. To the extent the scheduled quantity for an Eligible Intermittent Resource in the IFM is less then the quantity forecasted by CAISO, the CAISO makes a Supply side adjustment in RUC by using the CAISO forecasted quantity for the Eligible Intermittent Resource as the expected delivered quantity. To the extent the scheduled quantity for an Eligible Intermittent Resource in the IFM is greater than the quantity forecasted by the CAISO, the CAISO makes a Demand side adjustment to the RUC Zone Demand equal to the difference between the Day-Ahead Schedule and the CAISO forecasted quantity.

31.5.3.5 Real-Time Expected Incremental Supply Self-Schedule Adjustment.

In order to avoid over procurement of RUC, the CAISO shall, using a similar-day approach, estimate the HASP Self-Schedules for resources that usually submit HASP Self-Schedules that are greater than their Day-Ahead Schedules. The CAISO Operator may set the length of the Self-Schedule moving average window. Initially this moving average window shall be set by default to seven (7) days; in which case the weekday estimate is based on the average of five (5) most recent weekdays and the weekend estimate is based on the average of the two (2) most recent weekend days. To the extent weather conditions differ significantly from the historical days, additional adjustment may be necessary. After determining the estimate of Real-Time Self-Schedules, using a similar day forecasting approach, the CAISO adjusts the CAISO Forecast of CAISO Demand of a RUC Zone based on the forecasted quantity changes in Supply as a result of Self-Schedules submitted in the RTM. This adjustment for forecasted Real-Time Self-

Schedules may result in positive or negative adjustments. Demand adjustments to the CAISO Forecast of CAISO Demand result when there is a net forecast decrease in Real-Time Self-Schedule Supply relative to the Day-Ahead Schedule Supply. Supply adjustments to the individual resources occur when there is a net forecast increase in Real-Time Self-Schedule Supply relative to the Day-Ahead Schedule Supply of the individual resource.

31.5.3.6 Day-Ahead Ancillary Service Procurement Deficiency Adjustment.

While the CAISO intends to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM based on the CAISO Forecast of CAISO Demand as specified in Section 8.3.1, the CAISO shall make adjustments to the CAISO Forecast of CAISO Demand used in RUC to ensure sufficient capacity is available or resources committed in cases that the CAISO is unable to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM; provided, however, that the CAISO shall not procure specific Ancillary Services products in RUC, nor will the RUC optimization consider AS-related performance requirements of available capacity.

31.5.3.7 RUC Zones.

31.5.3.7.1 Use of RUC Zones.

The CAISO shall adjust the CAISO Forecast of CAISO Demand by RUC Zone for the conditions described in Sections 31.5.3.2 through 31.5.3.6. If any adjustments are made throughout the affected RUC Zone, such adjustments will be made consistent with the subset of system LDFs for the Nodes that define the RUC Zone(s). The CAISO will adjust the CAISO Forecast of CAISO Demand of each affected RUC Zone, preserving the LDFs within each RUC Zone, but the relative weighting of the LDFs across the system will deviate from the original LDFs. RUC costs will be pooled together to establish the RUC Compensation Costs. As described in Section 11.8.3, Settlement of RUC Compensation Costs will not be on a RUC Zone basis.

31.5.3.7.2 Designation of RUC Zones.

The CAISO shall define RUC Zones as areas that represent UDC or MSS Service Areas, Local Capacity Areas, or any other collection of Nodes. RUC Zones will be designated by the CAISO as necessary and to the extent that the CAISO has developed sufficient data on historical CAISO Demand and weather conditions to allow it to perform Demand Forecasts. The mapping of RUC Zones to Nodes shall be static data and shall be maintained in the Master File. The CAISO may add new Nodes to a RUC Zone if new Nodes are added to the FNM. The status of each RUC Zone shall remain active for as long as the CAISO maintains regional forecasting capabilities, but once a RUC Zone is designated the CAISO will only adjust the CAISO Forecast of CAISO Demand as necessary to address RUC procurement constraints and not as a normal course for all CAISO Market functions. The actual RUC Zones used by the CAISO in its operation of RUC are posted on the CAISO Website.

31.5.4 RUC Procurement Constraints.

In addition to the resource Constraints and network Constraints employed by SCUC as discussed in Section 27.4.1, the CAISO shall employ the following three Constraints in RUC:

- (a) To ensure that sufficient RUC Capacity is procured to meet the CAISO Forecast of CAISO Demand, the CAISO will enforce the power balance between the total Supply, which includes Day-Ahead Schedules and RUC Capacity, and the total Demand, which includes the CAISO Forecast of CAISO Demand and IFM export Schedules. The CAISO may adjust the CAISO Forecast of CAISO Demand to increase the RUC procurement target if there is AS Bid insufficiency in the IFM.
- (b) To ensure that RUC will neither commit an excessive amount of Minimum Load Energy nor procure an excessive amount of RUC Capacity from Scheduling Points the CAISO will verify that the sum of Day-Ahead Schedules, Schedules of

Generation Units, net imports and Participating Loads plus the Minimum Load Energy committed by RUC is not greater than a configurable percentage of the system CAISO Forecast of CAISO Demand.

that could otherwise be started during the Operating Day based on operational factors such as: 1)historical confidence that a Short Start Unit actually starts when needed based on the assessment of the CAISO Operators of the historical performance of Short Start Units; 2) need to conserve the number of run-hours and number of starts per year for critical loading periods; and 3) seasonal Constraints such as Overgeneration. The CAISO will verify that the total Day-Ahead Schedules and RUC Capacity from such resources is not greater than a configurable percentage of the total available capacity of all such resources.

31.5.5 Selection and Commitment of RUC Capacity.

Capacity that is not already scheduled in the IFM may be selected as RUC Capacity through the RUC process of the DAM. The RUC optimization will select RUC Capacity and produce nodal RUC Prices by minimizing total Bid cost based on RUC Availability Bids and Start-Up and Minimum Load Bids. RUC will not consider Start-Up and Minimum Load Bids for resources already committed in the IFM. The RUC Capacity of a resource is the incremental amount of capacity selected in RUC above the resource's Day-Ahead Schedule. The resource's Day-Ahead Schedule plus its RUC Capacity comprise the resource's RUC Schedule. The CAISO will only issue RUC Start-Up Instructions to resources that must start in the Day-Ahead in order to be available to meet Real-Time Demand. RUC Schedules will be provided to Scheduling Coordinators even if a RUC Start-Up Instruction is not issued at that time. RUC shall not reverse commitments issued through the IFM. If the RUC process cannot find a feasible solution given the resources committed in the IFM, the RUC process will adjust Constraints as described in Section

31.5.4 to arrive at a feasible solution that accommodates all the resources committed in the IFM, and any necessary de-commitment of IFM committed units shall be effectuated through an Exceptional Dispatch.

31.5.6 Eligibility for RUC Compensation.

All RUC Capacity is eligible for the RUC Availability Payment except for: (i) RUC Capacity from RMR

Units that has been designated as RMR Dispatch and included in RUC as a Self-Schedule; (ii) Resource

Adequacy Capacity; and (iii) RUC Capacity that corresponds to the resource's Minimum Load, which is

compensated through the Bid Cost Recovery as described in Section 11.8. Resources not committed in
the IFM that are committed in RUC, including RMR Units that were not designated for RMR Dispatches
and Resource Adequacy Resources, are also eligible for RUC Cost Compensation, which includes StartUp and Minimum Load Cost compensation, and Bid Cost Recovery, subject to the resource actually
following its Dispatch Instructions as verified by the CAISO pursuant to procedures set forth in the
Business Practice Manuals.

31.5.7 Rescission of Payments for Undispatchable and Undelivered RUC Capacity.

If capacity committed in RUC provided from a Generating Unit, Participating Load, System Unit or System Resource is Undispatchable Capacity or Undelivered Capacity during the relevant Settlement Interval, then payments will be rescinded as described in this Section 31.5.7 and settled in accordance with Section 11.2.2.2. If the CAISO determines that non-compliance of a Participating Load, Generating Unit, System Unit or System Resource with an operating order or Dispatch Instruction from the CAISO, or with any other applicable technical standard under the CAISO Tariff, causes or exacerbates system conditions for which the WECC imposes a penalty on the CAISO, then the Scheduling Coordinator of such Participating Load, Generating Unit, System Unit or System Resource shall be assigned that portion of the WECC penalty which the CAISO reasonably determines is attributable to such non-compliance, in addition to any other penalties or sanctions applicable under the CAISO Tariff. The rescission of payments in this Section 31.5.7 shall not apply to a capacity payment for any particular RUC Capacity if the RUC Availability Payment is less than or equal to zero.

31.5.7.1 Rescission of Payments for Undispatchable RUC Capacity.

The CAISO shall calculate the Real-Time ability of each Generating Unit, Participating Load, System Unit or System Resource to deliver Energy from or capacity committed in RUC for each Settlement Interval based on its maximum operating capability, actual telemetered output, and Operational Ramp Rate as described in Section 30.10. System Resources that receive an award for RUC Capacity in the Day-Ahead Market are required to electronically tag (E-Tag as prescribed by the WECC) RUC Capacity. If the amounts of RUC Capacity in an electronic tag differ from the amounts of RUC Capacity for the System Resource, the Undispatchable Capacity will equal the amount of the difference, and will be settled in accordance with the provisions of Section 11.2.2.2.1. If the Undispatchable Capacity is capacity committed in RUC and is from a Generating Unit, System Unit or System Resource that is a Resource Adequacy Resource, there is no payment obligation to the CAISO for the Undispatchable Capacity. The CAISO will report the instance of non-compliance by the Resource Adequacy Resource to the appropriate Local Regulatory Authority.

31.5.7.2 Rescission of Payments for Undelivered RUC Capacity.

For each Settlement Interval in which a Generating Unit, Participating Load, System Unit or System Resource fails to supply Energy from capacity committed in RUC in accordance with a Dispatch Instruction, or supplies only a portion of the Energy specified in the Dispatch Instruction, the RUC Availability Payment will be reduced to the extent of the deficiency, in accordance with the provisions of Section 11.2.2.2.2.

31.6 Timing of Day-Ahead Scheduling.

31.6.1 The CAISO may at its sole discretion implement any temporary variation or waiver of the timing requirements of this Section 31 and Section 6.5.3 (including the omission of any step) if any of the following criteria are met:

- (i) such waiver or variation of timing requirements is reasonably necessary to preserve System Reliability, prevent an imminent or threatened System Emergency or to retain Operational Control over the CAISO Controlled Grid during an actual System Emergency.
- (ii) because of error or delay, the CAISO requires additional time to fulfill its responsibilities;
- (iii) problems with data or the processing of data cause a delay in receiving or issuing Bids or publishing information on the CAISO's secure communication system;
- (iv) problems with telecommunications or computing infrastructure cause a delay in receiving or issuing Day-Ahead Schedules or publishing information on the CAISO's secure communication system.
- 31.6.2 If the CAISO temporarily implements a waiver or variation of such timing requirements, the CAISO will publish the following information on the CAISO's secure communication system as soon as practicable:
 - (i) the exact timing requirements affected;
 - (ii) details of any substituted timing requirements;
 - (iii) an estimate of the period for which this waiver or variation will apply; and
 - (iv) reasons for the temporary waiver or variation.
- 31.6.3 If, despite the variation of any time requirement or the omission of any step, the CAISO either fails to receive sufficient Bids or fails to clear the Day-Ahead Market, the CAISO may abort the Day-Ahead Market and require all Bids to be submitted in the HASP and RTM.

31.6.4 Demand Information.

By 6:00 a.m. on the day preceding the Trading Day, each Scheduling Coordinator shall provide to the CAISO a Demand Forecast specified by UDC Service Area for which it will submit a Bid for each of the Settlement Periods of the following Trading Day. The CAISO shall aggregate the Demand information by UDC Service Area and transmit the aggregate Demand information to each UDC serving such aggregate Demand.

31.7 Extremely Long-Start Commitment Process.

The CAISO shall perform the Extremely Long-Start Commitment Process (ELC Process) after the regular DAM results are posted. During the ELC Process the CAISO shall use a 48-hour simultaneous SCUC to assist it in determining the commitment of ELS Resources. ELS Resources are flagged in the Master File and are the only resources eligible to be committed in the ELC Process.

31.7.1 Execution of the Extremely Long-Start Commitment Process.

Each day after the DAM results are posted, the CAISO shall conduct the ELC Process to determine commitment of ELS Resources to be available to the CAISO Markets in the second day out. The CAISO will use the latest CAISO Forecast of CAISO Demand available to the CAISO for the Trading Day two days ahead of the current day that the ELC Process is executed. For the purpose of conducting the ELC Process, the CAISO will set the Ancillary Services requirements for the second day out based on the CAISO Forecast of CAISO Demand and forecasted firm imports. The CAISO shall execute a 48-hour simultaneous SCUC process to inform the decisions made in the ELC Process. The result of the 48-hour simultaneous SCUC process shall be reviewed by the CAISO Operator. The CAISO Operator shall use its operator judgment consistent with Good Utility Practice to determine whether the commitment instructions to the ELS Resources for the second day in the 48-hour Time Horizon should be implemented. The ELC Process shall not dispatch Energy for the ELC Process Time Horizon and

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therefore the commitment instructions do not include megawatts schedules greater than the Minimum Load. The Energy and Ancillary Service requirements are re-evaluated by the IFM executed the day after the applicable ELC Process. The Commitment Statuses of the ELS Resources are passed to the Bid validation process for use in the DAM for the Trading Day two days after the current day when the ELC Process is executed.

- 31.7.2 Inputs Used in the Extremely Long-Start Commitment Process.
- 31.7.2.1 Energy Bids and Ancillary Services Bids for the First Day of the ELC Process Time Horizon.

The commitment results that have been determined in the DAM for the Trading Day as reflected in the Day-Ahead Schedule and RUC Schedule issued on the current day that the ELC Process is executed, representing the first day of the 48-hour ELC Process, are modeled as self-committed. These resources are modeled as self-scheduled at the greater of the Day-Ahead Schedule for Energy or RMR Generation requirement, plus any RUC Awards for the purpose of running the 48-hour SCUC optimization in the ELC Process. This self-scheduled consideration is only for modeling purposes and does not affect eligibility for BCR of such resources for that Trading Day. The Self-Provided Ancillary Services and the Ancillary Service Awards produced by the IFM application on the current day that the ELC Process is executed are fixed in the applicable ELC Process and, therefore, the ELC Process does not procure any additional Ancillary Services for the first day of the ELC Process Time Horizon.

Energy Bids and Ancillary Services Bids for the Second Day of the ELC Process 31.7.2.2 Time Horizon.

For all resources that are not ELS Resources, Bids for Supply of Energy and Ancillary Services submitted for the first Trading Day of the ELC Process as submitted for the DAM for the same Trading Day are replicated as a surrogate for the Bids for the second Trading Day of the ELC Process Time Horizon. For all ELS Resources, Bids submitted for the Trading Day two days ahead of the current day on which the ELC Process is executed will be used as the Bids used for the second Trading Day of the ELC Process Time Horizon.

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31.7.2.3 Outages Considerations.

Any resource and transmission Outages and de-rates, including Ramp Rate de-rates, are considered in

the applicable Commitment Intervals in the two-day Time Horizon.

31.7.2.4 Initial and Boundary Conditions.

The CAISO will make the following assumptions in the ELC Process regarding resources already

committed:

(1) A resource that is committed by the IFM in a Trading Hour in the Trading Day is

considered committed in the same hour in the same Trading Day within the ELC

Process Time Horizon.

(2) A resource that has an RMR Generation requirement in a Trading Hour in the

Trading Day is considered committed in the same hour in the same Trading Day

within the ELC Process Time Horizon.

(3) A resource that has a RUC Schedule in a Trading Hour in the Trading Day is

considered committed in the same hour in the same Trading Day within the ELC

Process Time Horizon.

31.7.2.5 Constraints.

The ELC Process optimization will enforce the same Constraints that are enforced in RUC on the day the

ELC Process is executed. These include but are not limited to the following:

(1) The Energy balancing Constraints to meeting CAISO Forecast of CAISO

Demand adjustable by RUC Zones.

(2) The resource Constraints including capacity, Ramp Rates, Energy Limits,

Forbidden Operating Regions, Minimum Run Time and Minimum Down Time

Constraints, considering any Outages in the ELC Process Time Horizon.

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(3) The transmission Constraints including branch limits, Transmission Interface limits, and Nomograms, considering any Outages in the ELC Process Time Horizon.

(4) Both Self-Provided Ancillary Services and Ancillary Services Awards are fixed for the first day of the ELC Process Time Horizon. The AS requirements, as used in the IFM, remain the same for the first day of the ELC Process Time Horizon optimization. The Ancillary Services requirements for the second day of the ELC Process Time Horizon are specified for the ELC Process optimization using the Ancillary Services procurement process.

31.7.3 **Output of Extremely Long-Start Commitment Process.**

The results of the ELC Process are produced by 1500 hours two days ahead of the Trading Day. The results of the ELC Process indicate the commitment decisions for ELS Resources that were made in the ELC Process the day before. These commitment decisions are binding and the DAM applications model the committed ELS Resources as resources that are under a contractual obligation to provide. The CAISO Commitment Period or Self-Commitment Period determination for the ELS Resources depends on the DAM results and the Clean and Generated Bids, following the same rules that apply to other resources. All Commitment Intervals for the ELS Resources will be classified as CAISO Commitment Periods, unless there is a Self-Schedule or Self-Provided AS for that interval.

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33. HOUR-AHEAD SCHEDULING PROCESS (HASP).

The HASP is the hour-ahead process during the Real-Time which consists of the following activities. The HASP includes a special hourly run of the Real-Time Unit Commitment (RTUC), which is also one of the component processes of the RTM. The RTUC utilizes a SCUC optimization and runs every fifteen (15) minutes, as fully described in Section 34. This Section 33 describes the special features of the specific hourly HASP run of the RTUC. The HASP combines provisions for the CAISO to issue hourly predispatch instructions to System Resources that submit Energy Bids to the RTM and for the procurement of Ancillary Services on an hourly basis from System Resources, with provisions for Scheduling Coordinators to self-schedule changes to their Day-Ahead Schedules as provided in Section 33.1, and submit Bids to export Energy at Scheduling Points. The HASP also performs the MPM-RRD procedure with respect to the Bids that will be used in the HASP optimization and in the RTM processes for the same Trading Hour.

33.1 Submission of Bids for the HASP and RTM.

Scheduling Coordinators may submit Bids that will be used for the HASP and the RTM processes starting from the time Day-Ahead Schedules have been posted until seventy-five (75) minutes prior to each applicable Trading Hour in the Real-Time. The HASP and RTM processes do not accept Demand Bids for CAISO Demand, or Self-Schedules for exports other than those utilizing ETC or TOR rights. Export Bids that are not Self-Schedules may be submitted in HASP. The rules for submitted Bids specified in Section 30 apply to Bids submitted to the HASP and RTM. After the Market Close of the HASP and the RTM the CAISO performs a validation process consistent with the provisions set forth in Section 30.7 and the following additional rules. The CAISO will generate a Self-Schedule to cover any RUC Award or Day Ahead Schedule in the absence of any Self-Schedule or Economic Bid components, or to fill in any gaps between any Self-Schedule Bid and any Economic Bid components to cover a RUC Award or Day-Ahead Schedule. Bids submitted to the HASP and the RTM to supply Energy and Ancillary Services will be considered in the various HASP and RTM processes, including the MPM-RRD process, the HASP optimization, the STUC, the RTUC and the RTD.

33.2 The HASP Optimization.

After the Market Close for the HASP and RTM for the relevant Trading Hour, the Bids have been validated and the MPM-RRD process has been performed, the HASP optimization determines feasible but non-binding HASP Advisory Schedules for Generating Units for each fifteen-minute interval of the Trading Hour, as well as binding hourly HASP Intertie Schedules and binding hourly HASP AS Awards from Non-Dynamic System Resources for that Trading Hour. The HASP may also commit resources whose Start-Up Times are within its Time Horizon. The HASP, like the other runs of the RTUC, utilizes the same SCUC optimization and FNM as the IFM, with the FNM updated to reflect changes in system conditions as appropriate, to ensure that HASP Intertie Schedules are feasible. Instead of clearing against Demand Bids as in the IFM, the HASP clears Supply against the CAISO Forecast of CAISO Demand plus submitted Export Bids, to the extent the Export Bids are selected in the MPM-RRD process. The HASP optimization also factors in forecasted unscheduled flow at the Interties. The HASP optimization produces Settlement prices for hourly imports and exports to and from the CAISO Balancing Authority Area reflected in the HASP Intertie Schedule and for the HASP AS Awards for System Resources.

33.3 Treatment of Self-Schedules in HASP.

Scheduling Coordinators may submit Self-Schedules for Supply of Energy to the HASP. This includes Self-Schedules by Participating Load that is submitting Bids as a negative Generating Unit. Scheduling Coordinators may not submit Self-Schedules for CAISO Demand in HASP. Scheduling Coordinators may submit Self-Schedules for exports at Scheduling Points. The HASP optimization clears Bids, including Self-Schedules, while preserving all priorities in this process consistent with Section 31.4. The HASP optimization does not adjust submitted Self-Schedules unless it is not possible to balance Supply and the CAISO Forecast of CAISO Demand plus Export Bids and manage Congestion using the available Economic Bids, in which case the HASP performs non-economic adjustments to Self-Schedules. The MWh quantities of Self-Schedules of Supply that clear in the HASP constitute a feasible Dispatch for the

RTM at the time HASP is run, but the HASP results do not constitute a final Schedule for Generating Units because these resources may be adjusted non-economically in the RTD if necessary to manage Congestion and clear Supply and Demand. Self-Schedules submitted for Generation Units that clear in the HASP will be issued HASP Advisory Schedules. Scheduling Coordinators representing Participating Intermittent Resources whose output is being used to satisfy a resource adequacy requirement must submit Self-Schedules in HASP in accordance with the forecast provided by the independent forecast service provider. The submission of a change to an ETC Self-Schedule beyond the deadline specified in Section 16.9.1, that is permitted pursuant to the terms of the applicable ETC, shall not be deemed to be an unbalanced ETC Self-Schedule for the purposes of Settlement, consistent with the ETC and TOR Self-Schedule Settlement treatment described in Section 11.5.7.

33.4 MPM-RRD for the HASP and the RTM.

After the Market Close of the HASP and RTM, after the CAISO has validated the Bids pursuant to section 30.7, and prior to running the HASP optimization, the CAISO conducts the MPM-RRD process, the results of which will be utilized in the HASP optimization and all RTM processes for the Trading Hour. The MPM-RRD process for the HASP and RTM produces results for each fifteen-minute interval of the Trading Hour and thus may produce up to four mitigated Bids for any given resource for the Trading Hour. A single mitigated Bid for the entire Trading Hour is calculated using the minimum Bid price of the four mitigated Bid curves at each Bid quantity level. The Bids are mitigated only for the Bid quantities that are above the minimum quantity cleared in the CCR across all four fifteen-minute intervals. For a Condition 1 RMR Unit, if the dispatch level produced through the ACR is greater than the dispatch level produced through the CCR, and for a Condition 2 RMR Unit that is dispatched through the ACR, the resource will be flagged as an RMR Dispatch in the RTM and shall constitute a Dispatch notice pursuant to the RMR Contract.

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33.6 **HASP** Results.

The CAISO publishes the binding HASP Intertie Schedules and HASP AS Awards for System Resources, as well as HASP Advisory Schedules and HASP AS Awards for internal Generating Units no later than forty-five (45) minutes prior to the Trading Hour.

33.7 Ancillary Services in the HASP and the RTUC.

To maintain required Ancillary Services when changes in forecasts of Demand and resource Outages occur after the Day-Ahead AS Awards are established, the CAISO utilizes the RTUC runs, including the HASP, to procure additional Ancillary Services needed to meet Reliability Criteria. The HASP meets the expected need for additional Ancillary Services for the Trading Hour by utilizing the optimal mix of Ancillary Services from System Resources and from Generating Units. Only the AS from System Resources are binding AS Awards, and these are for the full Trading Hour. Those Generating Units designated in the HASP to provide Ancillary Services for the same Trading Hour are given non-binding advisory AS Awards as a result of the HASP because the use of Generating Units to provide AS will be re-optimized by a subsequent RTUC that is run closer to the time the AS will actually be needed, as described in Section 34.2. The HASP AS Awards for System Resources are settled at hourly ASMPs that are calculated in the HASP as described in Section 33.8. All Operating Reserves procured in HASP are Contingency Only Operating Reserves.

33.8 HASP Prices for HASP Intertie Schedules and HASP AS Awards.

The RTUC will produce fifteen-minute LMPs for the four fifteen-minute intervals for the applicable Trading Hour. The fifteen-minute LMPs corresponding to the Scheduling Points are then used to derive a simple average hourly price for the Settlement of hourly Intertie Schedules at each Scheduling Point. The RTUC will also produce fifteen-minute ASMPs for the four fifteen-minute intervals for the applicable Trading Hour. These fifteen-minute ASMPs are then used to derive an average hourly price for the Settlement of

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hourly HASP AS Awards. The RTUC run will also produce fifteen-minute Shadow Prices for each of the Interties for the four fifteen-minute intervals for the applicable Trading Hour. These fifteen-minute Shadow Prices are then used to derive an average hourly price for charging hourly Intertie AS Award providers for Congestion on the Interties. HASP Intertie Schedules and HASP AS Awards are settled in accordance with Sections 11.4 and 11.10.1.2 respectively.

33.9 Cessation of the HASP.

If, despite the variation of any time requirement or omission of any step, the CAISO is unable to operate the HASP, the CAISO may abort the HASP and perform all required functions through the RTM processes.

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34. REAL-TIME MARKET.

The RTM is the market conducted by the CAISO during any given Operating Day in which Scheduling Coordinators may provide Real-Time Imbalance Energy and Ancillary Services. The Real-Time Market consists of the Real-Time Unit Commitment (RTUC), the Short-Term Unit Commitment (STUC) and the Real-Time Dispatch (RTD) processes. The Short-Term Unit Commitment (STUC) runs once per hour at the top of the hour and utilizes the SCUC optimization to commit Medium Start, Short Start and Fast Start Units to meet the CAISO Demand Forecast. The CAISO shall dispatch all resources, including Participating Load pursuant to submitted Bids or pursuant to the provisions below on Exceptional Dispatch. The Time Horizon of the STUC is approximately 255 minutes, starting with the fourth fifteenminute interval of the next Trading Hour and extending for the next four Trading Hours. The RTUC runs every fifteen (15) minutes and utilizes the SCUC optimization to commit Fast Start and some Short Start resources and to procure any needed AS on a fifteen-minute basis. Any given run of the RTUC will have a Time Horizon of approximately sixty (60) to 105 minutes (four to seven fifteen-minute intervals) depending on when during the hour the run occurs. Not all resources committed in a given STUC or RTUC run will necessarily receive CAISO commitment instructions immediately, because during the Trading Day the CAISO may issue a commitment instruction to a resource only at the latest possible time that allows the resource to be ready to provide Energy when it is expected to be needed. The RTD uses a Security Constrained Economic Dispatch (SCED) algorithm every five minutes throughout the Trading Hour to determine optimal Dispatch Instructions to balance Supply and Demand and maintain required Ancillary Services quantities for the next binding target interval. The RTD optimization utilizes up to a sixty-five-minute Time Horizon (thirteen (13) five-minute intervals), but the CAISO issues Dispatch Instructions only for the next target five-minute Interval. The RTUC, STUC and RTD processes of the RTM use the same FNM used in the DAM and the HASP, subject to any necessary updates of the FNM pursuant to changes in grid conditions after the DAM has run.

34.1 Inputs to the Real-Time Market.

The RTM utilizes results produced by the DAM and HASP for each Trading Hour of the Trading Day, including the combined commitments contained in the Day-Ahead Schedules, Day Ahead AS Awards, RUC Awards, HASP Intertie Schedules, HASP Self-Schedules, HASP Intertie AS Awards and the MPM-RRD that is run as part of the HASP to determine reliability needs and mitigated bids for each relevant Trading Hour. These results, plus the short-term Demand Forecast, Real-Time Energy Bids, Real-Time Ancillary Service Bids, updated FNM, State Estimator output, resource outage and de-rate information constitute the inputs to the RTM processes. Bids submitted in HASP for all Generating Units and Participating Load shall be used in the Real-Time Market.

34.2 Real-Time Unit Commitment.

The Real-Time Unit Commitment (RTUC) process uses SCUC and is run every fifteen (15) minutes to: (1) make commitment decisions for Fast Start and Short Start resources having Start-Up Times within the Time Horizon of the RTUC process, and (2) procure required additional Ancillary Services and calculate ASMP used for settling procured Ancillary Service capacity for the next fifteen-minute Real-Time Ancillary Service interval. RTUC is run four times an hour, at the following times for the following Time Horizons: (1) at approximately 7.5 minutes prior to the next Trading Hour, in conjunction with the HASP run, for T-45 minutes to T+60 minutes; (2) at approximately 7.5 minutes into the current hour for T-30 minutes to T+60 minutes; and (4) at approximately 22.5 minutes into the current hour for T-15 minutes to T+60 minutes; and (4) at approximately 37.5 minutes into the current hour for T to T+60 minutes where T is the beginning of the next Trade Hour. The HASP, described in Section 33, is a special RTUC run that is performed at approximately 7.5 minutes before each hour and has the additional responsibility of: (1) pre-dispatching Energy and awarding Ancillary Services for hourly dispatched System Resources for the Trading Hour that begins 67.5 minutes later, and (2) performing the necessary MPM-RRD for that Trading Hour.

34.2.1 Commitment of Fast Start and Short Start Resources.

RTUC produces binding and advisory Start-Up and Shut-Down Dispatch Instructions for Fast Start and Short Start resources that have Start-Up Times that would allow the resource to be committed prior to the end of the relevant Time Horizon of the RTUC run. A Start-Up Dispatch Instruction is considered binding if the resource could not achieve the target start time as determined in the current RTUC run in a subsequent RTUC run as a result of the Start-Up Time of the resource. A Start-Up Instruction is considered advisory if it is not binding, such that the resource could achieve its target Start-Up Time as determined in the current RTUC run in a subsequent RTUC run based on its Start-Up Time. A Shut-Down Instruction is considered binding if the resource could achieve the target Shut-Down Time as determined in the current RTUC in a subsequent RTUC run. A Shut-Down Dispatch Instruction is considered advisory if the resource Shut-Down Instruction is not binding such that the resource could achieve its target Shut-Down time as determined in the current RTUC run in a subsequent RTUC run. A binding Dispatch Instruction that results in a change in Commitment Status will be issued, in accordance with Section 6.3, after review and acceptance of the Start-Up Instruction by the CAISO Operator. An advisory Dispatch Instruction changing the Commitment Status of a resource may be modified by the CAISO Operator to a binding Dispatch Instruction and communicated in accordance with Section 6.3 after review and acceptance by the CAISO Operator. Only binding and not advisory Dispatch Instructions will be issued by the CAISO.

34.2.2 Real-Time Ancillary Services Procurement.

If the CAISO determines that additional Ancillary Services are required, other than those procured in the DAM and the HASP, the RTUC will procure Ancillary Services on a fifteen-minute basis as necessary to meet reliability requirements and will determine Real-Time Ancillary Service interval ASMPs for such AS for the next Commitment Period. All Operating Reserves procured in the RTM are considered Contingency Only Operating Reserves. Any Ancillary Service awarded in RTUC will be taken as fixed for

the three five-minute RTD intervals of its target fifteen-minute interval. In the RTUC, all resources certified and capable of providing Operating Reserves that have submitted Real-Time Energy Bids shall also submit applicable Spinning or Non-Spinning Reserves Bids, respectively, depending on whether the resource is online or offline. The CAISO will utilize the RTUC to procure Operating Reserves to restore its Operating Reserve requirements in cases when: (1) Operating Reserves awarded in DAM or HASP have been dispatched to provide Energy, (2) resource(s) awarded to provide Operating Reserves in the DAM or HASP are no longer capable of providing such awarded Operating Reserves, or (3) the Operator determines that additional Operating Reserves are necessary to maintain Operating Reserves within WECC/MORC criteria. The CAISO will utilize the RTUC to procure additional Regulation capacity in Real-Time in cases when: (1) resource(s) awarded to provide Regulation in the DAM or HASP are no longer capable of providing such awarded Regulation, or (2) the Operator determines that additional Regulation is necessary to maintain sufficient control consistent with NERC/WECC criteria and Good Utility Practice.

34.3 Real-Time Dispatch.

The RTD can operate in three modes: RTED, RTCD and RTMD. The RTD (RTED and RTCD mode) uses a Security Constrained Economic Dispatch (SCED) algorithm every five (5) minutes throughout the Trading Hour to determine optimal Dispatch Instructions to balance Supply and Demand and maintain required Ancillary Service quantities for the next binding target interval. The Real-Time Economic Dispatch (RTED) will be used under most circumstances and will optimally dispatch resources based on their Energy Bids, excluding Contingency Only Operating Reserves except when needed to avoid an imminent System Emergency. The Real-Time Contingency Dispatch (RTCD) will be invoked when a transmission or generation contingency occurs and will include all Contingency Only Operating Reserves in the optimization. The Real Time Manual Dispatch (RTMD) will be invoked as a fall-back mechanism only when the RTED or RTCD fails to provide a feasible Dispatch. These three modes of the RTD are described in Sections 34.3.1 to 34.3.3.

34.3.1 Real-Time Economic Dispatch.

RTED mode of operation for RTD normally runs every five (5) minutes starting at approximately 7.5 minutes prior to the start of the next Dispatch Interval and produces a binding Dispatch Instruction for Energy for the next Dispatch Interval and advisory Dispatch Instructions for as many as twelve future Dispatch Intervals over the RTD optimization Time Horizon of sixty-five (65) minutes. After being reviewed by the CAISO Operator, only binding Dispatch Instructions are communicated for the next Dispatch Interval in accordance with Section 6.3. RTED will produce a Dispatch Interval LMP for each PNode for the Dispatch Interval associated with the binding Dispatch Instructions. The RTED Dispatch target is the middle of the interval between five (5) minutes boundary points.

34.3.2 Real-Time Contingency Dispatch.

RTCD mode of operation for RTD is run in response to a significant Contingency event, such that waiting until the next normal RTD run is not adequate and/or Operating Reserve identified as Contingency Only need to be activated in response to the event. The CAISO Operator may activate the Operating Reserve identified as Contingency Only either on a resource specific basis or for all such resources. When activating Contingency Only reserves in RTCD, the original Energy Bids associated with the resources providing Operating Reserve will be used for the RTCD. RTCD uses SCED to produce an optimized set of binding Dispatch Instructions for a single ten-minute Dispatch Interval instead of a normal five-minute Dispatch Interval. After being reviewed by the CAISO Operator, only binding Dispatch Instructions are communicated for the next Dispatch Interval in accordance with Section 6.3. When activating a RTCD and returning to normal RTED run after a RTCD run, five-minute Dispatch Interval LMPs will be produced for each PNode be based on the last available price from either the RTCD or normal RTED run relative to a five-minute target Dispatch Interval.

34.3.3 Real-Time Manual Dispatch.

RTMD mode of operation for RTD is a merit-order run activated upon CAISO Operator request as a backup process in case the normal RTED process fails to converge. The RTMD run will provide the CAISO Operator a list of resources and quantity of MW available for Dispatch in merit-order based on Operational Ramp Rate but otherwise ignores Transmission Losses and network Constraints. The CAISO Operator may dispatch resources from the list by identifying the quantity of Imbalance Energy that is required for the system and/or directly selecting resources from the merit order taking into consideration actual operating conditions. After Dispatches have been selected, reviewed and accepted by the CAISO Operator, Dispatch Instructions will be communicated in accordance with Section 6.3. While the RTMD mode is being used for Dispatch a uniform five-minute MCP will be produced for all PNodes based on the merit order Dispatch. Until RTMD is actually run and RTMD-based Dispatch Instructions are issued after RTED fails to converge, all five-minute Dispatch Interval LMPs will be set to the last LMP at each Node produced by the last RTED run that converged.

34.4 Short-Term Unit Commitment.

At the top of each Trading Hour, immediately after the RTUC run is completed, the CAISO performs an approximately five (5) hour Short-Term Unit Commitment (STUC) run using SCUC and the CAISO Forecast of CAISO Demand to commit Medium Start Units and Short Start Units with Start-Up Times greater than the Time Horizon covered by the RTUC. The Time Horizon for the STUC optimization run will extend three hours beyond the Trading Hour for which the RTUC optimization was run, and will replicate the Bids used in that Trading Hour for these additional hours. The CAISO revises these replicated Bids each time the hourly STUC is run, to utilize the most recently submitted Bids. A Start-Up Instruction produced by STUC is considered binding if the resource could not achieve the target Start-Up Time as determined in the current STUC run in a subsequent RTUC or STUC run as a result of the Start-Up Time of the resource. A Start-Up Instruction produced by STUC is considered advisory if it is not binding, such that the resource could achieve its target start time as determined in the current RTUC run

in a subsequent STUC or RTUC run based on its Start-Up Time. A binding Dispatch Instruction produced by STUC that results in a change in Commitment Status will be issued, in accordance with Section 6.3, after review and acceptance of the Start-Up Instruction by the CAISO Operator. The STUC will only decommit a resource to the extent that resource's physical characteristics allow it to be cycled in the same Time Horizon for which it was decommitted. STUC does not produce prices for Settlement.

34.5 General Dispatch Principles.

The CAISO shall conduct all Dispatch activities consistent with the following principles:

- (1) The CAISO shall issue AGC instructions electronically as often as every four seconds from its Energy Management System (EMS) to resources providing Regulation and on Automatic Generation Control to meet NERC and WECC performance requirements;
- (2) In each run of the RTED or RTCD the objective will be to meet the projected Energy requirements over the Time Horizon of that run, subject to transmission and resource operational Constraints, taking into account the short term CAISO Forecast of CAISO Demand adjusted as necessary by the CAISO Operator to reflect scheduled changes to Interchange and non-dispatchable resources in subsequent Dispatch Intervals;
- (3) Dispatch Instructions will be based on Energy Bids for those resources that are capable of intra-hour adjustments and will be determined through the use of SCED except when the CAISO must utilize the RTMD;
- (4) When dispatching Energy from awarded Ancillary Service capacity the CAISO will not differentiate between Ancillary Services procured by the CAISO and Submissions to Self-Provide an Ancillary Service;

- (5) The Dispatch Instructions of a resource for a subsequent Dispatch Interval shall take as a point of reference the actual output obtained from either the State Estimator solution or the last valid telemetry measurement and the resource's operational ramping capability;
- In determining the Dispatch Instructions for a target Dispatch Interval while at the same time achieving the objective to minimize Dispatch costs to meet the forecasted conditions of the entire Time Horizon, the Dispatch for the target Dispatch Interval will be affected by: (a) Dispatch Instructions in prior intervals, (b) actual output of the resource, (c) forecasted conditions in subsequent intervals within the Time Horizon of the optimization, and (d) operational Constraints of the resource, such that a resource may be dispatched in a direction for the immediate target Dispatch Interval that is different than the direction of change in Energy needs from the current Dispatch Interval to the next immediate Dispatch Interval;
- (7) Through Start-Up Instructions the CAISO may instruct resources to start up or shut down, or may reduce Load for Participating Loads, over the Time Horizon for the RTM based on submitted Bids, Start-Up Costs and Minimum Load Costs consistent with operating characteristics of the resources that the SCED is able to enforce. In making Start-Up or Shut-Down decisions in the RTM, the CAISO may factor in limitations on number of run hours or Start-Ups of a resource to avoid exhausting its maximum number of run hours or Start-Ups during periods other than peak loading conditions;
- (8) The CAISO shall only start up resources that can start within the Time Horizon used by the RTM optimization methodology;

- (9) The RTM optimization may result in resources being shut down consistent with their Bids and operating characteristics provided that: (1) the resource does not need to be on-line to provide Energy, (2) the resource is able to start up within the RTM optimization Time Horizon, (3) the Generating Unit is not providing Regulation or Spinning Reserve, and (4) Generating Units online providing Non-Spinning Reserve may be shut down if they can be brought up within ten (10) minutes as such resources are needed to be online to provide Non-Spinning Reserves; and
- (10) for resources that are both providing Regulation and have submitted Energy Bids for the RTM, Dispatch Instructions will be based on the Regulation Ramp Rate of the resource rather than the operational Ramp Rate.

34.6 Dispatch Instructions for Generating Units and Participating Load.

The CAISO may issue Dispatch Instructions covering:

- (a) Ancillary Services;
- (b) Energy, which may be used for:
 - (i) Congestion relief;
 - (ii) provision of Imbalance Energy; or
 - (iii) replacement of an Ancillary Service;
- (c) agency operation of Generating Units, Participating Loads or Interconnection schedules, for example:
 - (i) output or Demand that can be Dispatched to meet Applicable ReliabilityCriteria;
 - (ii) Generating Units that can be Dispatched for Black Start;
 - (iii) Generating Units that can be Dispatched to maintain governor control regardless of their Energy schedules;

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(d) the operation of voltage control equipment applied on Generating Units as described in this CAISO Tariff;

- (e) MSS Load following instructions provided to the CAISO, which the CAISO incorporates to create their Dispatch Instructions; or
- (f) necessary to respond to a System Emergency or imminent emergency.

34.7 Utilization of the Energy Bids.

The CAISO uses Energy Bids for the following purposes: (i) satisfying Real-Time Energy needs; (ii) mitigating Congestion: (iii) maintaining aggregate Regulation reserve capability in Real-Time; (iv) allowing recovery of Operating Reserves utilized in Real-Time operations; (v) procuring Voltage Support required from resources beyond their power factor ranges in Real-Time; (vi) establishing LMPs; (vii) as the basis for Bid Cost Recovery; and (viii) to the extent a Real-Time Energy Bid Curve is submitted starting at minimum operating level for a Short Start resource that is scheduled to be on-line, the RTM may Dispatch such a resource down to its minimum operating level and may issue a Shut-Down Instruction to the resource based on its Minimum Load Energy costs.

34.8 Dispatch of Energy From Ancillary Services.

The CAISO may issue Dispatch Instructions to Participating Generators, Participating Loads, System Units and System Resources contracted to provide Ancillary Services (either procured through the CAISO Markets, Self-Provided by Scheduling Coordinators, or dispatched in accordance with the RMR Contract) for the Supply of Energy. During normal operating conditions, the CAISO shall Dispatch those Participating Generators, Participating Loads, System Units and System Resources that have contracted to provide Spinning and Non-Spinning Reserve, except for those reserves designated as Contingency Only, in conjunction with the normal Dispatch of Energy. Contingency Only reserves are Operating Reserve capacity that have been designated, either by the Scheduling Coordinator or the CAISO, as available to supply Energy in the Real-Time only in the event of the occurrence of an unplanned Outage,

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a Contingency or an imminent or actual System Emergency. The CAISO may designate any reserve not previously identified as Contingency Only by Scheduling Coordinator as Contingency Only reserves, as necessary to maintain WECC MORC requirements. In the event of an unplanned Outage, a Contingency or a threatened or actual System Emergency, the CAISO may dispatch Contingency Only reserves. If Contingency Only reserves are dispatched through the RTCD, which as described in Section 34.3.2, only Dispatches in the event of a Contingency. Such Dispatch and pricing will be based on the original Energy Bids. If Contingency Only reserves are dispatched in response to a System Emergency that has occurred because the CAISO has run out of Economic Bids when no Contingency event has occurred. the RTED will Dispatch such Contingency Only reserves using maximum Bid prices as provided in Section 39.6.1 as the Energy Bids for such reserves and will set prices accordingly. If a Participating Generator, Participating Load, System Unit or System Resource that is supplying Operating Reserve is dispatched to provide Energy, the CAISO shall replace the Operating Reserve as necessary to maintain WECC MORC criteria. If the CAISO uses Operating Reserve to meet Real-Time Energy requirements, and if the CAISO needs Operating Reserves to satisfy MORC requirements, the CAISO shall restore the Operating Reserves to the extent necessary to meet MORC requirements through either the procurement of additional Operating Reserve in the RTM or the Dispatch of other Energy Bids in SCED to allow the resources that were providing Energy from the Operating Reserve to return to their Dispatch Operating Point. The Energy Bid Curve is not used by the AGC system when Dispatching Energy from Regulation. The upper portion of the resource capacity from its Regulation Limit is allocated to Regulation regardless of its Energy Bid Curve. For a resource providing Regulation Up or Operating Reserves the remaining Energy Bid Curve shall be allocated to any RTM AS Awards in the following order from higher to lower capacity where applicable: (a) Spinning Reserve; and (b) Non-Spinning Reserve. For resources providing Regulation Up, the applicable upper Regulation Limit shall be used as the basis of allocation if it is lower than the upper portion of the Energy Bid Curve. The remaining portion of the Energy Bid Curve, if there is any, shall constitute a Bid for RTM Energy.

34.9 Exceptional Dispatch.

The CAISO may perform Exceptional Dispatches for the circumstances described in this Section 34.9, which may require the issuance of forced Shut-Downs or forced Start-Ups. The CAISO shall conduct all Exceptional Dispatches consistent with Good Utility Practice. Dispatch Instructions issued pursuant to Exceptional Dispatches shall be entered manually by the Operator into the RTM optimization software so that they will be accounted for and included in the communication of Dispatch Instructions to Scheduling Coordinators. Exceptional Dispatches are not derived through the use of the RTM optimization software and are not used to establish the LMP at the applicable PNode. The CAISO will record the circumstances that have led to the Exceptional Dispatch. Imbalance Energy delivered or consumed pursuant to the various types of Exceptional Dispatch is settled according to the provisions in Section 11.5.6.

34.9.1 System Reliability Exceptional Dispatches.

The CAISO may manually dispatch Generation Units, System Units, Participating Loads, Dynamic System Resources, and Condition 2 RMR Units pursuant to Section 41.9, in addition to or instead of resources dispatched by RTM optimization software during a System Emergency, or to prevent an imminent System Emergency or a situation that threatens System Reliability and cannot be addressed by the RTM optimization and system modeling. To the extent possible, the CAISO shall utilize available and effective Bids from resources before dispatching resources without Bids. To deal with any threats to System Reliability, the CAISO may also dispatch in the Real-Time Non-Dynamic System Resources that have not been or would not be selected by the RTM for Dispatch, but for which the relevant Scheduling Coordinator has submitted a Bid into the HASP.

34.9.2 Other Exceptional Dispatch.

The CAISO may also manually dispatch resources in addition to or instead of resources dispatched by the RTM optimization software to: (1) perform Ancillary Services testing; (2) perform pre-commercial operations testing for Generating Units; (3) mitigate for Overgeneration; (4) provide for Black Start; (5) provide for Voltage Support; (6) accommodate TOR or ETC Self-Schedule changes after the Market Close of the HASP; or (7) to reverse a commitment instruction issued through the IFM that is no longer optimal as determined through RUC. If the CAISO dispatches an RMR Unit for Voltage Support, the RMR Unit will be compensated under its RMR Contract and not as an Exceptional Dispatch under the CAISO Tariff.

Transmission-Related Modeling Limitations. 34.9.3

The CAISO may also manually Dispatch resources in addition to or instead of resources dispatched by the RTM optimization software, during or prior to the Real-Time as appropriate, to address transmissionrelated modeling limitations in the Full Network Model. Transmission-related modeling limitations for the purposes of Exceptional Dispatch, including for settlement of such Exceptional Dispatch as described in Section 11.5.6, shall consist of any FNM modeling limitations that arise from transmission maintenance, lack of Voltage Support at proper levels as well as incomplete or incorrect information about the transmission network, for which the Participating TOs have primary responsibility. The CAISO shall also manually Dispatch resources under this Section 34.9.3 in response to system conditions including threatened or imminent reliability conditions for which the timing of the Real-Time Market optimization and system modeling are either too slow or incapable of bringing the CAISO Controlled Grid back to reliable operations in an appropriate time-frame based on the timing and physical characteristics of available resources to the CAISO.

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34.10 Uneconomic Adjustments in the RTM.

All Self-Schedules are respected by the SCED and SCUC to the maximum extent possible and are protected from curtailment in the Congestion Management process to the extent that there are effective Economic Bids that can relieve Congestion. If all Economic Bids for the RTM are exhausted, all Self-Schedules between the Minimum Load and the lowest energy level of the first Energy Bid point will be subject to uneconomic adjustments based on assigned scheduling priorities. Through this process, imports and exports may be reduced to zero, Demand may be reduced to zero, and Generation may be reduced to a lower operating limit(or Regulation Limit) (or to a lower Regulation Limit plus any qualified Regulation Down Award or Self-Provided Ancillary Services, if applicable). Any Self-Schedules below the Minimum Load level are treated as fixed Self-Schedules and are not subject to uneconomic adjustments for Congestion Management but may be subject to decommitment via an Exceptional Dispatch if necessary as a last resort to relieve Congestion that could not otherwise be managed.

34.10.1 Increasing Supply.

The scheduling priorities as defined in the RTM optimization to meet the need for increasing Supply as reflected from higher to lower priority are as follows:

- (a) Non-Participating Load reduction, exports explicitly identified in a Resource

 Adequacy Plan to be served by Resource Adequacy Capacity explicitly identified

 and linked in a Supply Plan to the exports, or Self-Schedules for exports at

 Scheduling Points in HASP served by Generation from non-Resource Adequacy

 Capacity or from non-RUC Capacity;
- (b) Self-Schedules for exports at Scheduling Points in HASP not offered by

 Generation from non-Resource Adequacy Capacity or not offered by Generation

 from non-RUC Capacity, except those exports explicitly identified in a Resource

 Adequacy Plan to be served by Resource Adequacy Capacity explicitly identified

 and linked in a Supply Plan to the exports as set forth in Section 34.10.1(a);

- (c) Contingency Only Operating Reserve if activated by Operator to provide Energy (as indicated by the Contingency Flag and the Contingency condition);
- (d) Economic Bids submitted in the HASP or RTM.

34.10.2 Decreasing Supply.

The scheduling priorities as defined in the RTM optimization to meet the need for decreasing Supply as reflected from higher to lower priority are as follows:

- (a) Non-Participating Load increase;
- (b) Reliability Must Run (RMR) Schedule (Day-Ahead manual pre-dispatch or Manual RMR Dispatches or Dispatches that are flagged as RMR Dispatches following the MPM-RRD process);
- (c) Transmission Ownership Right (TOR) Self-Schedule;
- (d) Existing Rights (ETC) Self-Schedule;
- (f) Regulatory Must-Run and Regulatory Must-Take (RMT) Self-Schedule;
- (g) Participating Load increase;
- (h) Day-Ahead Supply Schedule;
- (i) Self-Schedule submitted in HASP; and
- (j) Economic Bids submitted in the HASP or RTM.

These dispatch priorities as defined in the RTM optimization may be superseded by operator actions and procedures as necessary to ensure reliable operations.

34.11 Means of Dispatch Communication.

The CAISO dispatches Regulation by AGC to Participating Generators and, for Dynamic System Resources, through dedicated communication links that satisfy the CAISO's standards for external imports of Regulation. The CAISO communicates all other Dispatch Instructions electronically, except

that, at the CAISO's discretion, the CAISO may communicate Dispatch Instructions by telephone, or facsimile. Scheduling Coordinators shall confirm the Dispatch Instructions that are communicated orally by repeating them to the CAISO employee providing the Dispatch Instruction. Except in the case of deteriorating system conditions or an actual or threatened System Emergency, and except for Dispatch Instructions for Regulation, the CAISO sends all Dispatch Instructions to the Scheduling Coordinator. The recipient Scheduling Coordinator shall immediately communicate the Dispatch Instruction to the operator of the resource. The CAISO may, with the prior permission of the applicable Scheduling Coordinator, communicate with and give Dispatch Instructions to the operators of the resource directly without having to communicate through their Scheduling Coordinator. The CAISO shall record the communications between the CAISO and Scheduling Coordinators relating to Dispatch Instructions in a manner that permits auditing of the Dispatch Instructions, and of the response of the resources, as applicable. In situations of deteriorating system conditions or System Emergency, the CAISO reserves the right to communicate directly with the resource(s) as required to ensure System Reliability. Scheduling Coordinators are required to advise the CAISO immediately of any change in resource availability that prevents the recipient of a Dispatch Instruction from performing in accordance with that Dispatch Instruction.

34.11.1 Response Required by Resources to CAISO Dispatch Instructions.

Resources must:

- (a) unless otherwise stated in the Dispatch Instruction, comply with a Dispatch Instruction immediately upon receipt;
- (b) respond to all Dispatch Instructions in accordance with Good Utility Practice;
- meet voltage criteria in accordance with the provisions in the CAISO Tariff; (c)
- meet any applicable Operational Ramp Rates; (d)

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 respond to Dispatch Instructions for Ancillary Services within the required time periods and (in the case of Participating Generators providing Regulation)
 respond to AGC from the EMS; and

(f) if a time frame is stated in a Dispatch Instruction, respond to a DispatchInstruction within the stated time frame.

34.11.2 Failure to Conform to Dispatch Instructions.

In the event that, in carrying out the Dispatch Instruction, an unforeseen problem arises (relating to plant operations or equipment, personnel or the public safety), the recipient of the Dispatch Instruction must notify the CAISO or, in the case of a Generator, the relevant Scheduling Coordinator immediately. The relevant Scheduling Coordinator shall notify the CAISO of the problem immediately. If a resource is unavailable or incapable of responding to a Dispatch Instruction, or fails to respond to a Dispatch Instruction in accordance with its terms, the resource shall be considered to be non-conforming to the Dispatch Instruction unless the resource has notified the CAISO of an event that prevents it from performing its obligations within thirty (30) minutes of the onset of such event through a SLIC log entry. Notification of non-compliance via the Automated Dispatch System (ADS) will not supplant nor serve as the official notification mechanism to the CAISO. If the resource is considered to be non-conforming as described above, the Scheduling Coordinator for the resource concerned shall be subject to Uninstructed Imbalance Energy as specified in Section 11.5.2 and Uninstructed Deviation Penalties as specified in Section 11.23. This applies whether any Ancillary Services concerned are contracted or Self-Provided. For a Non-Dynamic System Resource Dispatch Instruction prior to the Trading Hour, the Scheduling Coordinator shall inform the CAISO of its ability to conform to a Dispatch Instruction via ADS. The Non-Dynamic System Resource has the option to accept, partially accept, or decline the Dispatch Instruction, but in any case must respond within the timeframe specified in a Business Practice Manual. The Non-Dynamic System Resource can change its response within the indicated timeframe. If a Non-Dynamic System Resource does not respond within the indicated timeframe, the Dispatch Instruction will be

considered declined. A decline of such a Non-Dynamic System Resource for a Dispatch Instruction received at least forty (40) minutes prior to the Trading Hour will be subject to Uninstructed Deviation Penalties as specific in Section 11.23. A decline of such a Non-Dynamic System Resource for a Dispatch Instruction received less than forty (40) minutes prior to the Trading Hour will not be subject to Uninstructed Deviation Penalties. A Non-Dynamic System Resource that only partially accepts a Dispatch Instruction is subject to Uninstructed Deviation Penalties for the portion of the Dispatch Instruction that is declined.

When a resource demonstrates that it is not following Dispatch Instructions, the RTM will no longer assume that the resource will ramp from its current output level. The RTM assumes the resource to be "non-compliant" if it is deviating its five (5)-minute Ramping capability for more than N intervals by a magnitude determined by the CAISO based on its determination that it is necessary to improve the calculation of the expected Imbalance Energy as further defined in the BPM. When a resource is identified as "non-compliant," RTM will set the Dispatch operating target for that resource equal to its actual output in the Market Clearing software such that the persistent error does not cause excessive AGC action and consequently require CAISO to take additional action to comply with reliability requirements. Such a resource will be considered to have returned to compliance when the resource's State Estimator or telemetry value (whichever is applicable) is within the above specified criteria. During the time when the resource is "non-compliant", the last applicable Dispatch target shall be communicated to the Scheduling Coordinator as the Dispatch operating target. The last applicable Dispatch target may be (i) the last Dispatch operating target within the current Trading Hour that was instructed prior to the resource becoming "non-compliant," or (ii) the Day-Ahead Schedule, or (iii) the HASP Self-Schedule depending on whether the resource submitted a Bid and the length of time the resource was "noncompliant".

34.12 Metered Subsystems.

Scheduling Coordinators that represent MSSs may submit Bids for Supply of Energy to the RTM, irrespective of whether the MSS is a Load following MSS. All Bids submitted for MSS generating resources for the RTM and all Dispatch Instructions shall be generating resource-specific. MSS non-Load following resources are responsible for following Dispatch Instructions. Load following MSS Operators shall provide the CAISO with an estimate of the number of MWs the applicable generating resource(s) will be generating over the next two hours in five-minute interval resolution. The Dispatch Instructions for Load following resources are incorporated with Generation estimates provided by MSS Operators. Such MSS Load following resources can deviate from the Dispatch Instructions in Real-Time to facilitate the following of Load without being subject to the Uninstructed Deviation Penalty as further described in Section 11.23 of the CAISO Tariff. The State Estimator will estimate all MSS Load in Real-Time and will incorporate the information provided by the Load following MSS Operator in clearing the RTM and its Dispatch Instructions.

34.13 Treatment of Resource Adequacy Capacity in the Real-Time Market.

Resource Adequacy Resources required to offer their Resource Adequacy Capacity in accordance with Section 40 shall be required to submit Energy Bids for: (1) all such Resource Adequacy Capacity and (2) any Ancillary Services capacity awarded or self-provided in the Day-Ahead, the HASP or RTM. In the absence of submitted Bids, as part of the validation described in 30.7, Generated Bids will be used for Resource Adequacy Resources required to offer their Resource Adequacy Capacity in accordance with Section 40. For any capacity from a Resource Adequacy Resource not required to offer Resource Adequacy Capacity in accordance with Section 40 that was awarded or is self-providing Operating Reserves capacity in the Day-Ahead Market, Scheduling Coordinators must submit an Energy Bid for no less than the amount of awarded or self-provided Operating Reserves capacity above their Day-Ahead

Schedule. Resource Adequacy Resources that are not required to offer their Resource Adequacy

Capacity in accordance with Section 40 may voluntarily submit Energy Bids. Submitted Energy Bids shall

be subject to the maximum and minimum Bid requirements and Mitigation Measures as set forth in

Section 39.

34.14 Real-Time Operational Activities in the Hour Prior to the Settlement Period.

34.14.1 Confirm Interchange Transaction Schedules (ITSs).

Also in the hour prior to the beginning of the Operating Hour the CAISO will:

- (a) adjust Interchange transaction schedules (ITSs) as required under Existing
 Contracts in accordance with the procedures in the CAISO Tariff for the
 management of Existing Contracts;
- adjust ITSs as required by changes in transfer capability of transmission paths
 occurring after Market Close of the HASP; and
- (c) agree on ITS changes with adjacent Balancing Authorities.

34.15 Rules For Real-Time Dispatch of Imbalance Energy Resources.

34.15.1 Resource Constraints.

The SCED shall enforce the following resource physical Constraints:

- (a) Minimum and maximum operating resource limits. Outages and limitations due to transmission clearances shall be reflected in these limits. The more restrictive operating or regulating limit shall be used for resources providing Regulation so that the SCED shall not Dispatch them outside their Regulating Range.
- (b) Forbidden Operating Regions. Resources can only be ramped through these regions. The SCED shall not Dispatch resources within their Forbidden Operating Regions unless at the maximum applicable Ramp Rate to clear the Forbidden Operating Region in consecutive Dispatch Intervals. Resources ramping through a Forbidden Operating Region shall not set LMP at its location and cannot provide Ancillary Services and will not be called upon to provide

Ancillary Services, unless the resource can cross the Forbidden Operating Region in less than twenty (20) minutes.

Operational Ramp Rates and Start-Up Times. The submitted Operational Ramp (c) Rate for resources that are not providing Regulation, and the submitted Regulation Ramp Rate for resources that are providing Regulation shall be used for all Dispatch Instructions. The Ramp Rate for Non-Dynamic System Resources cleared in the HASP will not be observed. Rather, the ramp of the Non-Dynamic System Resource will respect inter-Balancing Authority Area Ramping conventions established by WECC. Ramp Rates for Dynamic System Resources will be observed like Participating Generators in the RTD. Each Energy Bid shall be Dispatched only up to the amount of Imbalance Energy that can be provided within the Dispatch Interval based on the applicable Operational Ramp Rate or Regulation Ramp Rate. The Dispatch Instruction shall consider the relevant Start-Up Time as, if the resource is off-line, the relevant Ramp Rate function, and any prior commitments such as Schedule changes across hours and previous Dispatch Instructions. The Start-Up Time shall be determined from the Start-Up Time function and when the resource was last shut down. The Start-Up Time shall not apply if the corresponding resource is on-line or expected to start. The CAISO Markets optimization considers fast and slow Ramping resources. Fast Ramping resources can ramp from PMin to PMax based on their Operational Ramp Rate in twenty (20) minutes or less. Slow Ramping resources take more than twenty (20) minutes to ramp from PMin to PMax based on their Operational Ramp Rate. The CAISO determines whether it is appropriate to procure Ancillary Services or Energy from fast Ramping and slow Ramping resources based on the RTUC optimization.

- (d) Maximum Number of Daily Start-Ups. The SCED shall not cause a resource to exceed its daily maximum number of Start-Ups.
- (e) Minimum Up and Down time. The SCED shall not start up off-line resources before their Minimum Down Time expires and shall not shut down on-line resources before their minimum up time expires.
- (f) Operating (Spinning and Non-Spinning) Reserve. The SCED shall Dispatch Spinning and Non-Spinning Reserve subject to the limitations set forth in Section 34.16.3.
- (g) Non-Dynamic System Resources. If Dispatched, each Non-Dynamic System Resource flagged for hourly pre-dispatch in the next Trading Hour shall be Dispatched to operate at a constant level over the entire Trading Hour. The HASP shall perform the hourly pre-dispatch for each Trading Hour once prior to the Operating Hour. The hourly pre-dispatch shall not subsequently be revised by the SCED and the resulting HASP Intertie Schedules are financially binding and are settled pursuant to section 11.4.
- (h) Daily Energy use limitation to the extent that Energy limitation is expressed in a resource's Bid. If the Energy Limits are violated for purposes of Exceptional Dispatches for System Reliability, the Bid will be settled as provided in Section 11.5.6.1.

34.16 Ancillary Services in the Real-Time Market.

34.16.1 [NOT USED]

34.16.2 Dispatch of Self-Provided Ancillary Services.

Where a Scheduling Coordinator has chosen to self-provide the whole of the additional Operating Reserve required to cover any Interruptible Imports which it has submitted through Self-Schedules in the Day-Ahead Market and has identified specific Generating Units, Participating Loads, System Units or System Resources as the providers of the additional Operating Reserve concerned, the CAISO shall Dispatch only the designated Generating Units, Participating Loads, System Units or System Resources in the event of the CAISO being notified that the on demand obligation is being curtailed. The Scheduling Coordinator scheduling an Interruptible Import will be responsible for Operating Reserves associated with the Interruptible Import, regardless of whether the Scheduling Coordinator is an LSE or not. For all other Submissions to Self-Provide an Ancillary Service, the Energy Bid shall be used to determine the Dispatch, subject to the limitation on the Dispatch of Spinning Reserve and Non-Spinning Reserve set forth in Section 34.10.

34.16.3 Ancillary Services Requirements for RTM Dispatch.

The following requirements apply to the Dispatch of Ancillary Services in the RTM:

34.16.3.1 Regulation.

- (a) Regulation provided from Generating Units or System Resources must meet the standards specified in this Tariff and Part A of Appendix K;
- (b) The CAISO will Dispatch Regulation in merit order of Bid prices as determined by the EMS. Dispatch of Regulation by EMS does not set the RTM LMP.
- (c) in the event of an unscheduled increase in system Demand or a shortfall in Generation output and Regulation margin drops, the CAISO will use Dispatch Energy in the RTM or Dispatch Operating Reserve, to restore Regulation margin; and
- (d) when scheduled Operating Reserve is used for restoration of Regulation reserve,the CAISO shall arrange for the replacement of that Operating Reserve;

34.16.3.2 Operating Reserve.

- (a) Spinning Reserve:
 - (i) Spinning Reserve provided from Generating Units and Interconnection schedules must meet the standards specified in Part B of Appendix K;
 - the CAISO will Dispatch Spinning Reserve as may be required to meet the Applicable Reliability Criteria;
 - (iii) the CAISO may Dispatch Spinning Reserve as balancing Energy to return Regulation Generating Units to their Set Points and restore full Regulation margin; and
 - (iv) the CAISO will Dispatch Spinning Reserve in merit order of Energy Bid prices as determined by the SCED;
- (b) Non-Spinning Reserve:
 - (i) Non-Spinning Reserve provided from Generating Units, Demands, and external imports of System Resources must meet the standards specified in Part C of Appendix K
 - (ii) the CAISO may Dispatch Non-Spinning Reserve in place of Spinning Reserve to meet Applicable Reliability Criteria;
 - (iii) the CAISO will Dispatch Non-Spinning Reserve in merit order of Energy Bid prices as determined by the SCED; and
 - (iv) the CAISO may Dispatch Non-Spinning Reserve to replace Spinning Reserve if there is a shortfall in Spinning Reserve because of a deficiency of balancing Energy;

34.16.3.3 Replacement of Operating Reserve.

- (a) if pre-arranged Operating Reserve is used to meet balancing Energy requirements, the CAISO may replace such Operating Reserve by Dispatch of additional balancing Energy available from Energy Bids submitted in the HASP for the RTM or procurement of additional reserves based on an economic optimization of a resource's RTM Ancillary Service Bid and its Energy Bid.;
- (b) any additional Operating Reserve needs may also be met the same way; and
- (c) where the CAISO elects to rely upon Energy Bids, the CAISO shall select the resources with the lowest incremental Energy Bid price as established by SCED.

34.16.3.4 Voltage Support.

- (a) Voltage Support provided from Generating Units shall meet the standards specified in this Tariff and the Part E of Appendix K;
- (b) the CAISO may Dispatch Generating Units to increase or decrease MVar output within the power factor limits of 0.9 lagging to 0.95 leading (or within other limits specified by the CAISO in any exemption granted pursuant to Section 8.2.3.3 of the CAISO Tariff) at no cost to the CAISO when required for System Reliability;
- (c) may Dispatch each Generating Unit to increase or decrease MVar output outside of established power factor limits, but within the range of the Generating Unit's capability curve, at a price calculated in accordance with CAISO Tariff;
- (d) If Voltage Support is required in addition to that provided pursuant to 34.16.3.4
 (b) and (c), the CAISO will reduce output of Participating Generators certified in accordance with Appendix K . The CAISO will select Participating Generators in the vicinity where such additional Voltage Support is required; and
- (e) the CAISO will monitor voltage levels at Interconnections to maintain them in accordance with the applicable inter-Balancing Authority Area agreements.

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34.16.4 Inter-hour Dispatch of Resources With Real-Time Energy Bids.

Dispatch Instructions associated with the ramp between the HASP Bid in one hour to the HASP Bid in the immediately succeeding Operating Hour shall be determined optimally by the SCED if the CAISO has Bids for either or both relevant Operating Hours. For any Operating Hour(s) for which Bids have been submitted Dispatch Instructions will be optimized such that the Dispatch Operating Point is within the Bid range(s). For any Operating Hour without submitted Bids, Dispatch Instructions will be optimized such that the Dispatch Operating Point conforms to the Schedule within the Operating Hour. Energy resulting from the Standard Ramp shall be deemed Standard Ramping Energy and will be settled in accordance with Section 11.5.1. Energy resulting from any ramp extending beyond the Standard Ramp will be deemed Ramping Energy Deviation and will be settled in accordance with Section 11.5.1. Energy delivered or consumed as a result of CAISO Dispatch of a resource's Energy Bid in one Operating Hour to a Dispatch Operating Point such that the resource cannot return to its successive Operating Hour Schedule or to an infra-marginal operating point by the beginning of the next Operating Hour is Residual Imbalance Energy and shall be settled as Instructed Imbalance Energy as provided for in Section 11.5.1 and also may be eligible for recovery of its applicable Energy Bid Costs in accordance with Section 11.8. Similarly, Energy delivered or consumed as a result of CAISO Dispatch of a resource's Energy Bid in a future Operating Hour to a Dispatch Operating Point different from its current Operating Point prior to the end of the current Operating Hour is also considered Residual Imbalance Energy and shall be settled as Instructed Imbalance Energy as provided for in Section 11.5.1 and also may be eligible for recovery of its applicable Energy Bid Costs in accordance with Section 11.8. When Ramping Energy Deviation and Residual Imbalance Energy coexist within a given Dispatch Interval, the Ramping Energy Deviation shall be the portion of Instructed Imbalance Energy that is produced or consumed within the Schedule-change band defined by the accepted HASP Bids of the two consecutive Settlement Periods; the Residual Imbalance Energy shall be the portion of Instructed Imbalance Energy that is produced or consumed outside the Schedule-change band.

34.16.5 Inter-hour Dispatch of Resources Without Real-Time Energy Bids.

Dispatch Instructions shall be issued for each Dispatch Interval as needed to prescribe the ramp between a resource's accepted HASP Bid in one Trading Hour to its accepted HASP Bid in the immediately succeeding Operating Hour. Such Dispatch Instructions shall be based on the lesser of: (1) the applicable Operational Ramp Rate as provided for in Section 30.10 and (2) the Ramp Rate associated with the Standard Ramp. The Dispatch Instructions for Ramping of Generating Units without Real-Time Energy Bids in both Operating Hours shall ramp the resource between hourly Schedules symmetrically across hourly boundaries in twenty (20) to sixty (60) minutes assuming congestion can be resolve utilizing Economic Bids. The minimum twenty (20)-minute ramp is required for smooth hourly Schedule changes and is consistent with Intertie scheduling agreements between Balancing Authority Areas. Resources with slower Ramp Rates would have longer ramps, and at the extreme, would ramp from the middle of an hour to the middle of the next hour. Energy resulting from the Standard Ramp shall be deemed Standard Ramping Energy and will be settled in accordance with Section 11.5.1. Energy resulting from any ramp extending beyond the Standard Ramp will be deemed Ramping Energy Deviation and will be settled in accordance with Appendix N, Part D-1, Section 2.1.2.

34.16.6 Intra-Hour Exceptional Dispatches.

For the special case where an Exceptional Dispatch begins in the new hour and the rules above would result in the violation of the resources inter-temporal constraint(s), the following rules are applied and the Energy is settled as Exceptional Dispatch Energy as described in Section 11.5.6.

(a) If the ramp time is greater than one hour or greater than what can be achieved when RTM receives the Constraint, RTM starts the ramp at the earliest possible time and continues Ramping the resource in the new Trading Hour.

- (b) If the ramp time results in starting the ramp less than ten (10) minutes before the start of the hour, RTM instead starts the ramp at ten (10) minutes before the start of the hour and ramps the resource at a uniform rate so that it meets the Constraint by the start time of the Exceptional Dispatch.
- (c) If the new hour's Day-Ahead Schedule is beyond the Exceptional Dispatch

 Constraint, RTM resumes the basic Ramping rules after the Exceptional Dispatch

 Constraint is met, but limits the Ramp Rate as necessary to ensure that the

 resource does not complete its ramp before ten (10) minutes after the hour.

34.17 Dispatch Information and Instructions.

34.17.1 Dispatch Information To Be Supplied by the CAISO.

Communication of Dispatch information provided by the CAISO shall be in accordance with Section 6.3.

34.17.2 Dispatch Information To Be Supplied by Scheduling Coordinator.

Each Scheduling Coordinator shall be responsible for the submission of Bids and Dispatch of Generation and Demand in accordance with its Day-Ahead Schedule. Each Scheduling Coordinator shall keep the CAISO apprised of any change or potential change in the current status of all Generating Units, Interconnection schedules and Inter-SC Trades. This will include any changes in Generating Unit capacity that could affect planned Dispatch and conditions that could affect the reliability of a Generating Unit. Each Scheduling Coordinator shall immediately pass to the CAISO any information which it receives from a Generator which the Generator provides to the Scheduling Coordinator pursuant to Section 36.11.1. Each Scheduling Coordinator shall immediately pass to the CAISO any information it receives from a MSS Operator which the MSS Operator provides to the Scheduling Coordinator regarding any change or potential change in the current status of all Generating Units, System Units,

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Interconnection schedules and Inter-Scheduling Coordinator Energy Trades. This information includes any changes in MSS System Units and Generating Unit capacity that could affect planned Dispatch and conditions that could affect the reliability of the System Unit or Generating Unit.

34.17.3 Dispatch Information To Be Supplied by UDCs.

Each UDC shall keep the CAISO informed of any change or potential change in the status of its transmission lines and station equipment at the point of Interconnection with the CAISO Controlled Grid. Each UDC shall keep the CAISO informed as to any event or circumstance in the UDC's service territory that could affect the reliability of the CAISO Controlled Grid. This would include adverse weather conditions, fires, bomb threats, etc.

34.17.4 Dispatch Information To Be Supplied by PTOs.

Each PTO shall report any change or potential change in equipment status of the PTO's transmission assets turned over to the control of the CAISO or in equipment that affects transmission assets turned over to the control of the CAISO immediately to the CAISO (this will include line and station equipment, line protection, Remedial Action Schemes and communication problems, etc.). Each PTO shall also keep the CAISO immediately informed as to any change or potential change in the PTO's transmission system that could affect the reliability of the CAISO Controlled Grid. This would include adverse weather conditions, fires, bomb threats, etc.

Each PTO shall schedule all Outages of its lines and station equipment which are under the Operational Control of the CAISO in accordance with the appropriate procedures in Section 9.3. Each PTO shall coordinate any requests for or responses to Forced Outages on its transmission lines or station equipment which are under the Operational Control of the CAISO directly with the appropriate CAISO Control Center as defined in Section 7.1.

34.17.5 Dispatch Information To Be Supplied by Balancing Authorities.

The CAISO and each adjacent Balancing Authority shall keep each other informed of any change or potential change in the status of the Interconnection and any changes in the Interconnection's TTC. The CAISO and each adjacent Balancing Authority shall keep each other informed of situations such as adverse weather conditions, fires, etc., that could affect the reliability of any Interconnection. Each Balancing Authority of the Balancing Authority Areas in the California area, as defined by the WECC Regional Security Plan, shall keep the CAISO informed of all information required by WECC for use by the Reliability Coordinator.

The CAISO and each adjacent Balancing Authority shall follow all applicable NERC and WECC scheduling procedures. This will include checking the Interconnection schedules for the next Settlement Period prior to the start of the Energy ramp going into that hour. The CAISO and each adjacent Balancing Authority shall check and agree on actual MWh net Interchange after the hour for the previous Settlement Period. One Balancing Authority Area shall change its actual number to reflect that of the other Balancing Authority Area in accordance with WECC standard procedures.

The CAISO and each adjacent Balancing Authority shall exchange MW, MVar, terminal and bus voltage data with each other on a four second update basis. MWh data for the previous hour shall be exchanged once per hour. All MW and MWh data for both the CAISO Balancing Authority Area and the adjacent Balancing Authority Areas must originate from the same metering equipment. All provisions in Sections 4.6.1.1(i) and 4.6.1.1 (ii) refer to information and data obtained from metering used for Balancing Authority Area operations and not metering used for billing and Settlement.

34.18 [NOT USED]

34.19 Pricing Imbalance Energy.

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34.19.1 General Principles.

Instructed and Uninstructed Imbalance Energy shall be paid or charged the applicable Resource-Specific Settlement Interval LMP except for hourly pre-dispatched Instructed Imbalance Energy, which shall be settled as set forth in Section 11.5.2. These prices are determined using the Dispatch Interval LMPs. The Dispatch Interval LMPs shall be based on the Bid of the marginal Generating Units, System Units, and Participating Loads dispatched by the CAISO to increase or reduce Demand or Energy output in each Dispatch Interval as provided in Section 34.19.2.1.

The CAISO will respond to the Dispatch Instructions issued by the SCED to the extent practical in the time available and acting in accordance with Good Utility Practice. The CAISO will record the reasons for any variation from the Dispatch Instructions issued by the SCED.

34.19.2 Determining Real-Time LMPs.

34.19.2.1 Dispatch Interval Real-Time LMPs.

34.19.2.2 Computation.

For each Dispatch Interval, the CAISO will compute updated Supply and Demand curves, using the Generating Units, System Units, Dynamic System Resources and Participating Load Dispatched according to the CAISO's SCED during that time period to meet Imbalance Energy requirements. The RTM transactions will be settled at the Dispatch Interval LMPs in accordance with Section 11.5.

34.19.2.3 Eligibility to Set the Real-Time LMP.

All Generating Units, Participating Loads, Dynamic System Resources, System Units, or COGs subject to the provisions in Section 27.7, with Bids, including Default Energy Bids, that are unconstrained due to Ramp Rates or other temporal Constraints are eligible to set the LMP, provided that the Generating Unit, Participating Load, Dynamic System Resource, or System Unit is Dispatched within its submitted Economic Bid range. If a resource is Dispatched beyond its Economic Bid range, the CAISO enforces a resource-specific Constraint on the resource due to an RMR or Exceptional Dispatch, or the resource is

Ramping through a Forbidden Operating Region, the resource will not be eligible to set the LMP. Resources identified as MSS Load following resources are not eligible to set the LMP. A resource constrained at an upper or lower operating limit, a boundary of a Forbidden Operating Region or dispatched for a quantity of Energy such that its full Ramping capability is constraining the ability of the resource to be dispatched for additional Energy in target interval, cannot be marginal (i.e., it is constrained by the Ramping capability) and thus is not eligible to set the Dispatch Interval LMP. Non-Dynamic System Resources are not eligible to set the Dispatch Interval LMP. Dynamic System Resources are eligible to set the Dispatch Interval LMP. A Constrained Output Generator that has the ability to be committed or shut off within the two-hour Time Horizon of the RTM will be eligible to set the Dispatch Interval LMP if any portion of its Energy is necessary to serve Demand. Dispatches of Regulation resources by EMS in response to AGC will not set the RTM LMP. Dispatches of Regulation resources to a Dispatch Operating Point by RTM SCED will be eligible to set the RTM LMP.

34.19.2.4 Real-Time LMP When Responding To A Contingency.

In cases when a Contingency occurs and the CAISO must activate its Operating Reserves, it may perform a Real-Time Contingency Dispatch (RTCD) for a target interval 10 minutes from the current time. When activating a Contingency Dispatch and returning to normal Dispatch in RTM, LMPs shall be based on the last available price from either the Contingency Dispatch or normal Dispatch run relative to the five-minute pricing target.

34.19.2.5 Price for Uninstructed Deviations for Participating Intermittent Resources.

Deviations associated with each Participating Intermittent Resource in a Scheduling Coordinator's portfolio shall be settled as provided in Section 11.12 at the monthly weighted average Dispatch Interval LMP, as calculated in accordance with Section 11.5.4.1 at each Pnode associated with the Participating Intermittent Resource, and using the monthly weighted average with weights equal to total Real-Time Generation.

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35 Market Validation and Price Correction.

35.1 Market Validation.

The CAISO shall monitor the Market Clearing software solutions for the Day-Ahead Market, the RUC process, the Hour-Ahead Scheduling Process, and the Real-Time Market for all market intervals to determine whether prices are calculated accurately, consistent with the provisions of the CAISO Tariff. To the extent reasonably practicable, the CAISO shall correct erroneous prices identified through such monitoring and re-run the relevant CAISO Markets prior to publication of prices on its Open Access Same-Time Information System (OASIS) or provision of prices directly to Market Participants, if applicable.

35.2 Timing of the Price Correction Process.

Prices for each Trading Day shall become subject to the CAISO's price correction process once the CAISO publishes them on its OASIS or provides them directly to Market Participants, if applicable. The price correction process for each Trading Day shall end no later than 1700 hours of the eighth calendar day following that Trading Day. The CAISO may establish an earlier end-time for the price correction process in the applicable Business Practice Manual and may complete the price correction process for any Trading Day earlier than the end-time established in this Section 35 or in the Business Practice Manual. The CAISO shall provide notification on the CAISO Website when it has completed the price correction process for each Trading Day. If the CAISO does not provide such notification, the price correction process will be deemed complete at 1700 hours of the eighth calendar day following that Trading Day, unless an earlier time is established by the applicable Business Practice Manual.

35.3 Finality of Prices Subject to the Price Correction Process.

All prices shall be considered provisional until the CAISO has completed the price correction process regarding them. All prices for each Trading Day shall be considered final for purposes of this Section 35 once the price correction process for that Trading Day has ended, except that the CAISO may adjust, rerun, or otherwise correct such prices after the conclusion of the price correction process to the extent authorized by the provisions of the CAISO Tariff other than this Section 35.

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35.4 Scope of Price Corrections.

The CAISO may correct all financially binding prices whenever the CAISO identifies an invalid market solution or invalid prices in an otherwise valid market solution. The circumstances in which the CAISO may determine that an invalid market solution or invalid prices exist include the following: the occurrence of data input failure; the occurrence of hardware or software failure; or a result that is inconsistent with the CAISO Tariff.

35.5 **Price Correction Methodology.**

The CAISO shall correct prices to conform with the relevant provisions of the CAISO Tariff to the extent such correction is practicable. To the extent such correction is not practicable, the CAISO shall correct prices so that they are as close as reasonably possible to the prices that should have resulted under the relevant provisions of the CAISO Tariff, using the most accurate data available, and in a manner that is consistent with the prevalent system conditions existing at that time. The CAISO shall correct prices using the first applicable and practicable correction method of the following:

- (a) The CAISO shall selectively recalculate incorrect financially binding prices when the invalid prices are isolated and can be corrected such that no other financially binding prices are affected by the correction.
- If the correction method in Section 35.5(a) is not applicable and practicable, the (b) CAISO shall conduct a market re-run for an invalidated market interval when all market inputs applicable to the market interval to be re-run are either (i) preserved from the original market run, for data that was not the cause of the invalidated price, (ii) corrected, in the case of invalid initial data in the initial Market Clearing, or (iii) recreated or replicated data using the best available alternate data sources, in the case of missing data in the initial Market Clearing.

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(c) If the correction methods in Sections 35.5(a) and 35.5(b) are not applicable and practicable, the CAISO shall use, in place of prices for the binding interval of an invalidated market solution, replicated prices from binding or advisory intervals from the validated market solution in which the market conditions were most similar to the market conditions in the invalidated market solution, for the affected interval. In no case will an invalidated Day-Ahead Market solution be replaced with a valid Day-Ahead Market solution from a previous Trading Day. The method set forth in this Section 35.5(c) shall apply in the Day-Ahead Market only when some but not all hourly market intervals within a valid market run are deemed to be invalid and the market is not re-run pursuant to the method set forth in Section 35.5(b), above.

The CAISO shall include details concerning the CAISO's price correction methodology in the applicable Business Practice Manual.

35.6 Weekly Price Correction Report.

The CAISO shall summarize all price corrections that occur within a week in a report that shall be posted on the CAISO Website by the seventh day of the following week. For all price corrections that occur during each week, the price correction report shall specify: (a) which market intervals were affected, (b) which price locations were affected, (c) a brief description of the reason for the price correction, and (d) the method of price corrective action undertaken.

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36 Congestion Revenue Rights.

36.1 Overview of CRRs and Procurement of CRRs.

The CAISO distributes CRRs through an allocation and auction process as described in this Section 36. CRR Holders and Market Participants eligible to become CRR Holders can also buy, sell, or trade CRRs bilaterally as described in Section 36.7.

36.2 Types of CRR Instruments.

CRRs can be CRR Obligations or CRR Options. Each CRR is fully specified by its type (CRR Obligation or CRR Option), its CRR Source(s), its CRR Sink(s), its MW quantity, and the Trading Hours for which it is valid. The CRR Source(s) and CRR Sink(s) determine the direction of the CRR, which is from CRR Source(s) to CRR Sink(s).

36.2.1 CRR Obligations.

A CRR Obligation entitles its holder to receive a CRR Payment if the Congestion in a given Trading Hour is in the same direction as the CRR Obligation, and requires the CRR Holder to pay a CRR Obligation charge if the Congestion in a given Trading Hour is in the opposite direction of the CRR. The CRR Payment or CRR Obligation charge is equal to the per-MWh cost of Congestion (which equals the MCC at the CRR Sink minus the MCC at the CRR Source) multiplied by the MW quantity of the CRR.

36.2.2 CRR Options.

A CRR Option entitles its CRR Holder to a CRR Payment if the Congestion is in the same direction as the CRR Option, but requires no CRR Obligation charge if the Congestion is in the opposite direction of the CRR. The CRR Payment is equal to the per-MWh cost of Congestion (which equals the MCC at the CRR Sink minus the MCC at the CRR Source, when this quantity is positive and zero otherwise) multiplied by the MW quantity of the CRR.

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36.2.3 Point-to-Point CRRs.

A Point-to-Point CRR is a CRR Option or CRR Obligation defined from a single CRR Source to a single

CRR Sink.

36.2.4 Multi-Point CRRs.

A Multi-Point CRR is a CRR Obligation defined by more than one CRR Source and/or more than one

CRR Sink, plus a specified distribution of the total MW value of the CRR over the multiple CRR Sources

and/or multiple CRR Sinks such that the total MW assigned to all CRR Sources equals the total MW

assigned to all CRR Sinks equals the MW value of the CRR. For the allocation of CRRs under this

Section 36, an LSE seeking to be allocated a Multi-Point CRR must specify a single CRR Sink in its

nomination.

36.2.5 Monthly CRRs.

Monthly CRRs have a term of one month, are differentiated by time of use periods (on-peak and off-

peak), and are available through the monthly CRR Allocation and CRR Auction processes in advance of

each month.

36.2.6 Seasonal CRRs.

Seasonal CRRs have a term of three months, and are differentiated by the different time of use periods

(on-peak and off-peak) for each day within a season. Seasonal CRRs are made available through the

annual CRR Allocation and CRR Auction processes conducted each year prior to the year in which the

Seasonal CRR applies.

36.2.7 Long Term CRRs.

Long Term CRRs have a term of ten years. Long Term CRRs are seasonal and are differentiated by the

different time of use periods (on-peak and off-peak) for each day within a season. When Long Term

CRRs are nominated and allocated they apply to the same season and time of use period for each year

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of the ten-year term and represent binding ten-year commitments by the CRR Holders that hold Long Term CRRs. Long Term CRRs are nominated and allocated to LSEs in Tier LT that is one tier in the sequence of tiers in the annual CRR Allocation process. Long Term CRRs are not available through the CRR Auction.

36.2.8 Full Funding of CRRs.

All CRRs will be fully funded; provided however, that full funding of CRRs will be suspended if a System Emergency as described in Section 7.7.4, an Uncontrollable Force as described in Section 14, or a Participating TO's withdrawal of facilities or Entitlements from the CAISO Controlled Grid as described in Section 36.8.7 leaves the CAISO with inadequate revenues.

36.3 CRR Specifications.

36.3.1 Quantity.

CRRs are distributed and settled in no less than one-tenth of a MW denomination.

36.3.2 Term.

CRRs are Monthly CRRs, Seasonal CRRs, Long Term CRRs or Merchant Transmission CRRs. For CRR purposes, the applicable seasons are conventional calendar quarters as defined in the Business Practice Manual.

36.3.3 On-Peak and Off-Peak Specifications.

CRRs are defined either for on-peak or off-peak hours as specified by the CAISO in the applicable Business Practice Manuals consistent with the WECC standards at the time of the relevant CRR Allocation or CRR Auction.

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36.4 FNM for CRR Allocation and CRR Auction.

When the CAISO conducts its CRR Allocation and CRR Auction, the CAISO shall use the most up-to-date DC FNM which is based on the AC FNM used in the Day-Ahead Market. The Seasonal Available CRR Capacity shall be based on the DC FNM, taking into consideration the following, all of which are discussed in the applicable Business Practice Manual: (i) any long-term scheduled transmission Outages, (ii) OTC adjusted for any long-term scheduled derates, and (iii) a downward adjustment due to TOR as determined by the CAISO. The Monthly Available CRR Capacity shall be based on the DC FNM, taking into consideration: (i) any scheduled transmission Outages known at least thirty (30) days in advance of the start of that month, (ii) adjustments to compensate for the expected impact of Outages that are not required to be scheduled thirty (30) days in advance, including unplanned transmission Outages, (iii) adjustments to restore Outages or derates that were applied for use in calculating Seasonal Available CRR Capacity but are not applicable for the current month, (iv) any new transmission facilities added to the CAISO Controlled Grid that were not part of the DC FNM used to determine the prior Seasonal Available CRR Capacity and that have already been placed in-service and energized at the time the CAISO starts the applicable monthly process, (v) OTC adjusted for any scheduled derates or Outages for that month, and (vi) a downward adjustment due to TOR as determined by the CAISO. For the first monthly CRR Allocation and CRR Auction for CRR Year One, to account for any planned or unplanned Outages that may occur for the first month of CRR Year One, the CAISO will derate all flow limits, including Transmission Interface limits and normal thermal limits based on statistical factors determined as provided in the Business Practice Manuals.

36.4.1 Transmission Capacity Available for CRR Allocation and CRR Auction.

With the exception of the Tier LT, the CAISO makes available seventy-five percent (75%) of Seasonal Available CRR Capacity for the annual CRR Allocation and CRR Auction processes, and one hundred percent (100%) of Monthly Available CRR Capacity for the monthly CRR Allocation and CRR Auction processes. The CAISO makes available sixty percent (60%) of Seasonal Available CRR Capacity in the Tier LT. Available capacity at Scheduling Points shall be determined in accordance with Section 36.8.4.2 for the purposes of CRR Allocation and CRR Auction of CRRs that have a CRR Source identified at a Scheduling Point. Before commencing with the annual or monthly CRR Allocation and CRR Auction processes, the CAISO may distribute Merchant Transmission CRRs and will model those as fixed injections and withdrawals on the DC FNM to be used in the allocation and auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test. Similarly, before commencing the annual or monthly CRR Allocation and CRR Auction processes, the CAISO will model any previously allocated Long Term CRRs as fixed injections and withdrawals on the DC FNM to be used in the CRR Allocation and CRR Auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test, which will ensure no degradation of previously allocated and outstanding Long Term CRRs due to the CRR Allocation and CRR Auction processes. Maintaining the feasibility of allocated Long Term CRRs over the length of their terms also is accomplished through the transmission planning process in Section 24.1.3.

36.4.2 Simultaneous Feasibility.

The annual and monthly CRR Allocation processes release CRRs to fulfill CRR nominations as fully as possible subject to a Simultaneous Feasibility Test. To the extent that nominations are not simultaneously feasible, the nominations are reduced in accordance with the CRR Allocation optimization formulation until simultaneous feasibility is achieved. The CRR Allocation optimization formulation,

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detailed in the Business Practice Manuals, reduces nominated CRRs based on effectiveness in relieving overloaded constraints in order to minimize the total MW volume reduction of nominations while achieving simultaneous feasibility. In the event that there are two or more identical nominations for a specific combination of CRR Source and CRR Sink that affect an overloaded constraint, the CRR Allocation optimization formulation cannot distinguish these nominations based on effectiveness and, therefore, the CRR Allocation optimization will award each such Candidate CRR Holder a pro rata share of the CRRs that can be awarded based on each Candidate CRR Holder's nominated MW amounts. In addition to the adjustments in Section 36.4.1, the SFT for each CRR Allocation considers:

- (a) CRRs representing ETCs, Converted Rights and any TOR capacity that was not captured in the adjustments described in Section 36.4, which the CAISO deems necessary to prevent the Congestion Settlement of ETCs, Converted Rights, and TORs from causing revenue inadequacy of allocated and auctioned CRRs;
- (b) In the case of the monthly CRR Allocation, the CRRs already released for that month in the annual CRR Allocation and Auction; and,
- (c) The CRRs allocated in previous CRR Allocation tiers as described in Sections 36.8.3.1 through 36.8.3.6.

The CAISO will be responsible for submitting CRR nominations associated with ETC and Converted Rights Self-Schedules. These nominations will be Point-to-Point CRR nominations. The priority weights for these Point-to-Point CRR nominations will be given a higher value than the proxy bids associated with the nominations submitted by the CRR Allocation participants. In addition, as further provided in the

Business Practice Manual, the CAISO will enforce the following general pro-rationing rules when one or more sources from an Multi-Point CRR nomination compete with a Point-to-Point CRR nomination for a limited amount of capacity on a constraint, and the effectiveness on the constraint for each of the competing Multi-Point CRR sources is equal to the effectiveness of the Point-to-Point CRRs on the constraint. As further provided in the Business Practice Manual, in certain circumstances such as when the CAISO receives a relatively small sink nomination value, could not apply.

- (1) The cleared MW amounts for the Point-to-Point CRR and the Multi-Point CRR high priority sources are proportional to their respective nominated MW values;
- (2) The cleared MW amounts for the Multi-Point CRR sources are inversely proportional to the total number of high priority sources in the Multi-Point CRR; and
- (3) Point-to-Point CRR sources always have priority over low priority Multi-Point CRR sources.

In the event that transmission Outages and derates modeled for the monthly CRR Allocation and CRR Auction render previously issued Seasonal CRRs infeasible, the CAISO will increase the transfer capacity on the overloaded facilities just enough to render all Seasonal CRRs issued for the month feasible without creating any additional capacity beyond what is needed for the feasibility of the Seasonal CRRs. The CAISO will announce these adjustments to the market prior to conducting the monthly CRR Allocation and CRR Auction so that Candidate CRR Holders can take these facts into consideration in preparing their nominations and bids.

36.5 Candidate CRR Holder and CRR Holder Requirements.

Any entity that holds or intends to hold CRRs must register and qualify with the CAISO and comply with the other terms of this Section, regardless of whether they acquire CRRs by CRR Allocation, CRR Auction, the Secondary Registration System, or are assigned CRRs for Load Migration.

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36.5.1 Creditworthiness Requirements.

All CRR Holders and Candidate CRR Holders must comply fully with all creditworthiness requirements as provided in Section 12 and Section 12.6 and as further developed in the applicable Business Practice Manuals. The amount of available credit for participating in a CRR Auction cannot exceed the entity's Aggregate Credit Limit as provided in Section 12.

36.5.2 Required Training.

CRR Holders and Candidate CRR Holders must attend a training class at least once prior to participating in the CRR Allocations or CRR Auctions. The CAISO may update training requirements annually or on an as-needed basis. Unless granted a waiver by the CAISO, Candidate CRR Holders and CRR Holders shall at all times have in their employment a person that has attended the CAISO's CRR training class and shall notify the CAISO as soon as practicable of a change in such status.

36.6 [NOT USED]

36.7 **Bilateral CRR Transactions.**

36.7.1 Transfer of CRRs.

36.7.1.1 **General Provisions of CRR Transfers.**

A CRR Holder may sell or otherwise transfer CRRs in increments of at least one (1) tenth of a MW. Sales or other such transfers must be for at least a full day term consistent with the on-peak or off-peak specification of the CRR. The transferee may be any entity that is a Candidate CRR Holder or a CRR Holder consistent with the CAISO Tariff and the applicable Business Practice Manuals. All CRRs that are so sold or otherwise transferred by the CRR Holder continue to be subject to the relevant terms and conditions set forth in the CAISO Tariff and the applicable Business Practice Manuals.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

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36.7.1.2 Specific Provisions for Transfer of Long Term CRRs.

A CRR Holder that holds Long Term CRRs may sell or transfer through the Secondary Registration System MW portions and temporal segments of a Long Term CRR corresponding to the current calendar year as well as the calendar year covered by the most recently completed annual CRR Allocation. For such sales or transfers the Long Term CRR will be subject to the same limits on granularity that apply to Seasonal CRRs and Monthly CRRs, as specified in Section 36.7.1. A CRR Holder that holds Long Term CRRs may not transfer or sell through the Secondary Registration System any temporal segment of a Long Term CRR beyond the calendar year covered by the most recently completed annual CRR Allocation. For temporal segments beyond the year covered by the most recently completed annual CRR Allocation, the CRR Holder to whom a Long Term CRR was originally allocated remains the holder of record of the entire Long Term CRR for CAISO Settlement purposes. Allocated Long Term CRRs represent binding ten-year commitments by a CRR Holder that holds Long Term CRRs and may not be terminated or otherwise modified by the CRR Holder prior to the end of the Long Term CRR's ten-year term.

36.7.2 Responsibility of the CAISO.

The CAISO provides Market Participants a Secondary Registration System to facilitate and track CRR bilateral transactions. The bulletin board of the Secondary Registration System enables any entity that wishes to purchase or sell CRRs to post that information.

36.7.3 CRR Holder Reporting Requirement.

CRR Holders must report to the CAISO by way of the Secondary Registration System all bilateral CRR transactions consistent with the terms of this CAISO Tariff and the Business Practice Manuals. Both the

transferor and the transferee of the CRRs must register the transfer of the CRR with the CAISO using the Secondary Registration System at least five (5) Business Days prior to the effective date of transfer of revenues associated with a CRR. The CAISO shall not transfer any Settlement related to any CRR until such time that the CRR transfer has been successfully recorded through the SRS and the transferee has met all the creditworthiness requirements as specified in Section 12 and Section 12.6. Both the transferor and transferee shall submit the following information to the Secondary Registration System: (i) the effective start and end dates of the transfer of the CRR; (ii) the identity of the transferor; (iii) the identity of the transferee; (iv) the quantity of CRRs being transferred; (v) the CRR Sources and CRR Sinks of the CRRs being transferred; and (vi) time of use period of the CRR. The transferee must meet all requirements of CRR Holders, including disclosure to the CAISO of all entities with which the transferee is affiliated that are CRR Holders or Market Participants as defined in Section 36.5.

36.8 CRR Allocation.

The CAISO allocates CRRs to Load Serving Entities serving Load internal to CAISO Balancing Authority

Area, including MSS Operators as described in Section 36.10, as well as Qualified OBAALSEs. All CRRs

allocated under the terms of this Section 36.8 will be CRR Obligations.

36.8.1 Structure of the CRR Allocation Process.

The CAISO conducts an annual CRR Allocation: (i) once a year for the entire year for Seasonal CRRs; and (ii) once a year for the ten-year term of Long Term CRRs. The annual CRR Allocation releases Seasonal CRRs and Long Term CRRs for four seasonal periods. The CAISO also conducts monthly CRR Allocations twelve times a year in advance of each month. Within each annual and monthly CRR Allocation process the CAISO performs distinct allocation processes for each on-peak and off-peak time of use specification. The CRR Allocation process for CRR Year One is a distinct process that differs from subsequent CRR Allocations as described in Sections 36.8.3.1 and 36.8.3.2. Each CRR Allocation

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procedure is based on nominations to the CAISO by LSEs or Qualified OBAALSEs eligible to receive CRRs. The CAISO performs adjustments to the Seasonal CRRs and Long Term CRRs allocated to LSEs as necessary to reflect Load Migration between LSEs, as described in Section 36.8.5. A timeline of the CRR Allocation and CRR Auction processes is contained in the BPMs.

36.8.2 Load Eligible for CRRs and Eligible CRR Sinks.

Any entity that wishes to participate in the CRR Allocation process must provide information that demonstrates that it has an obligation to serve load. An LSE's eligibility for allocation of CRRs is measured by the quantity of Load that it serves that is exposed to Congestion Charges for the use of the CAISO Controlled Grid as determined in Sections 36.8.2.1 and 36.8.2.2. An OBAALSE's eligibility for allocation of CRRs is also measured by the quantity of load that it serves that is exposed to Congestion Charges for the use of the CAISO Controlled Grid as determined in Section 36.9.3. For LSEs, the information necessary may include, but is not limited to, Settlement Quality Meter Data or relevant documents filed with the California Energy Commission. For OBAALSEs, the necessary information may include, but is not limited to, historical tagged Real-Time Interchange Export Schedules and historical load data reflecting the load they serve that is exposed to Congestion Charges for the use of the CAISO Controlled Grid. In addition, each such OBAALSE shall support its data submission with a written sworn affidavit by an executive authorized to represent the OBAALSE attesting to the accuracy of the data, and the CAISO will have the right to audit the raw data and calculations used to develop the submitted data set. An LSE serving internal Load is eligible for CRRs up to its Seasonal CRR Eligible Quantity or Monthly CRR Eligible Quantity, which is derived from its Seasonal CRR Load Metric or Monthly CRR Load Metric as described in Sections 36.8.2.1 and 36.8.2.2, respectively. Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities for Qualified OBAALSEs are determined as provided in

Section 36.9.3. These quantities are calculated for each LSE or Qualified OBAALSE separately for each combination of season and time of use period for the annual CRR Allocation process, and for each time of use period for each monthly CRR Allocation process, and for each CRR Sink at which the eligible LSE serves Load or the Qualified OBAALSE exports Energy from the CAISO Balancing Authority Area. MSS eligibility for CRRs will account for net or gross MSS Settlement in accordance with Section 4.9.13.1. If the MSS Operator elects net Settlement, LSEs for such MSS Load shall submit CRR Sink nominations at the MSS LAP. If the MSS elects for gross Settlement, LSEs for such MSS Load shall submit CRRs Sink nominations at the applicable Default LAP. Load that is Pumped-Storage Hydro Units but is not Participating Load may be scheduled and settled at a PNode or Custom Load Aggregation Point and therefore LSEs for such Load shall submit CRR Sink nominations at the applicable PNode or Custom Load Aggregation Point. Load that is a Participating Load that is also aggregated is scheduled and settled at a Custom Load Aggregation Point that is customized specifically for such Load and, therefore, LSEs for such Participating Load shall submit CRR Sink nominations at the Custom Load Aggregation Point. Load that is Participating Load is scheduled and settled at an individual PNode, and therefore LSEs for such Load shall submit CRR Sink nominations at the applicable PNode. Load that is non-Participating Load, is not Pumped-Storage Hydro Units, and is not Load associated with ETCs, TORs, or MSS Operators that elects net Settlement, is scheduled and settled at the Default LAP. Therefore, LSEs for such Load shall submit CRR Sink nominations at their assigned Default LAP or Default LAPs if the Load they serve is located in more than one Default LAP. In tier 3 of the annual process and tier 2 of the monthly process, such LSEs may also submit CRR Sink nominations at a Sub-LAP of their assigned Default LAP. The CAISO will make available, prior to the beginning of the CRR Allocation process, a list of allowable CRR Sinks to be used in the allocation.

36.8.2.1 Seasonal CRR Eligible Quantity.

The CAISO constructs Load duration curves by season and time of use periods for the annual CRR Allocation process for each LSE based on the LSE's submission to the CAISO of its historical hourly Load data for the prior year, for each LAP within which the LSE serves Load. An LSE's Seasonal CRR Load Metric for each season and time of use period is the MW level of Load that is exceeded only in 0.5% of the hours based on the LSE's historical Load data. In the event that the LSE has lost or gained net Load through Load Migration during the course of the prior year, the historical Load data will be adjusted to reflect the loss or gain in accordance with the applicable BPM. The CAISO calculates an LSE's Seasonal CRR Eligible Quantity by first subtracting from that LSE's Seasonal CRR Load Metric the quantity of Load served by its TORs, ETCs, and Converted Rights to form the LSE's Adjusted Load Metric, and then multiplying the result by 0.75.

36.8.2.2 Monthly CRR Eligible Quantity.

Each month the CAISO uses the LSE's submitted hourly Load forecast data for the relevant month to calculate two Load duration curves (one on-peak and one off-peak Load duration curve for the applicable month) to form the basis for monthly allocations for each CRR Sink in which the LSE serves Load. Each LSEs submitted hourly forecast data should reflect any Load growth that is not due to Load Migration as well as the effect of net Load Migration for that LSE. The Monthly CRR Load Metric is the MW level of Load that is exceeded only in 0.5% of the hours based on the LSE's submitted Load forecast. The CAISO will calculate an LSE's Monthly CRR Eligible Quantity by subtracting from that LSE's Monthly CRR Load Metric the quantity of Load served by its TORs, ETCs, and Converted Rights. In addition the CAISO will adjust the LSE's Monthly CRR Eligible Quantity, if such an adjustment is determined to be necessary pursuant to Section 36.8.6.

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36.8.3 CRR Allocation Process.

36.8.3.1 Annual CRR Allocation for CRR Year One.

The annual CRR Allocation process for CRR Year One consists of a sequence of four (4) tiers for each season and time of use period (on-peak and off-peak). Each tier will feature a SFT applied to the CRR nominations submitted by eligible LSEs or Qualified OBAALSEs, the results of which are provided by the CAISO to the respective LSEs or Qualified OBAALSEs prior to the LSEs or Qualified OBAALSEs submitting their nominations to the next tier. Allocations of CRRs in each tier are considered final once they are provided by the CAISO to the respective LSEs or Qualified OBAALSEs. After each tier, LSEs or Qualified OBAALSEs will have an amount of time as specified in the Business Practice Manual after their receipt of the results of each tier to submit their nominations for the next tier, if there is one. The annual CRR Allocation allows LSEs or Qualifed OBAALSEs to submit nominations for Seasonal CRRs up to their Seasonal CRR Eligible Quantities for each season of the relevant year, each time of use CRR Sink as provided in Sections 36.8.3.1.1, 36.8.3.1.2 and 36.8.3.1.4. The annual CRR Allocation also allows LSEs to submit nominations for Long Term CRRs up to twenty percent (20%) of their Adjusted Load Metric for each season, time of use period and each LAP; except that an LSE that demonstrates that more than twenty percent (20%) of its Adjusted Load Metric is covered by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of Generation resources is able to submit nominations for a greater amount as specified in Section 36.8.3.1.3. As provided in Section 36.8.3.1.3.2, the annual CRR Allocation allows a Qualified OBAALSE to submit nominations for Long Term CRRs up to fifty percent (50%) of its Adjusted Load Metric for each season, time of use period and Scheduling Point provided that the Qualified OBAALSE demonstrates that all of its nominated Long Term CRR Sources are covered by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of generation resources. The annual CRR Allocation for CRR Year One will be conducted in the following sequence of tiers:

36.8.3.1.1 Tier 1. In tier 1, an LSE or a Qualified OBAALSE may nominate and the CAISO will allocate to the LSE or a Qualified OBAALSE Seasonal CRRs up to fifty percent (50%) of its Seasonal CRR Eligible Quantity for each season, time of use period and CRR Sink. An LSE or a Qualified OBAALSE can nominate Seasonal CRRs sourced at Trading Hubs in accordance with the LSE's or Qualified OBAALSE's verified CRR Sources. In running the SFT the CAISO shall disaggregate the Seasonal CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1. All allocated CRRs that result from such disaggregation will be Point-to-Point CRRs each of whose CRR Source is a Generating Unit PNode that is an element of the Trading Hub.

36.8.3.1.2 Tier 2. In tier 2, an LSE or a Qualified OBAALSE may nominate and the CAISO will allocate to the LSE or Qualified OBAALSE Seasonal CRRs up to seventy-five percent (75%) of its Seasonal CRR Eligible Quantity for each season, time of use period and CRR Sink, minus the quantity of CRRs allocated to that LSE or Qualified OBAALSE in tier 1. An LSE or a Qualified OBAALSE can nominate Seasonal CRRs sourced at Trading Hubs in accordance with the LSE's or Qualified OBAALSE's verified CRR Sources. In tier 2 an LSE or a Qualified OBAALSE with a verified Trading Hub CRR Source may nominate up to seventy-five (75%) of the Adjusted Verified CRR Source Quantity for that Trading Hub, minus the total MW quantity of Point-to-Point CRRs the LSE or Qualified OBAALSE was allocated in tier 1 as a result of its tier 1 nomination of CRRs sourced at that Trading Hub. In running the SFT the CAISO shall disaggregate the Seasonal CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1. All allocated CRRs that result from such disaggregation will be Point-to-Point CRRs each of whose CRR Source is a Generating Unit PNode that is an element of the Trading Hub.

36.8.3.1.3 Tier LT. Tier LT will follow tier 2 for CRR Year One. In Tier LT, an LSE or a Qualified OBAALSE may nominate Long Term CRRs from the Seasonal CRRs allocated in tiers 1 and 2 as provided in this Section 36.8.3.1. The cleared Point-to-Point CRRs awarded in tier 1 and tier 2 that resulted from disaggregated CRR nominations sourced at a Trading Hub may not be nominated in Tier LT in CRR Year One. Any Point-to-Point CRRs awarded as a result of disaggregated CRR nominations sourced at a Trading Hub, as described in Section 36.8.4.1, must be nominated as Trading Hub CRRs as described in this Section 36.8.3.1.3. In running the SFT the CAISO shall disaggregate the Seasonal CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1. All allocated Long Term CRRs that result from such disaggregation will be Point-to-Point CRRs each of whose CRR Source is a Generating Unit PNode that is an element of the Trading Hub.

36.8.3.1.3.1 Tier LT for LSEs.

The quantity of Seasonal CRRs that an LSE can nominate as Long Term CRRs is limited to twenty percent (20%) of the LSE's Adjusted Load Metric, except that an LSE that can demonstrate that more than twenty percent (20%) of its Adjusted Load Metric is covered by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of Generation resources is able to submit nominations for a greater amount as provided in this section. Such demonstrations shall be provided by the requesting LSE to the CAISO through the submission of a written sworn declaration by an executive employee authorized to represent the LSE and attest to the accuracy of the data demonstration. As necessary, the CAISO may request, and such LSE must produce in a timely manner, documents in support of such declaration. If the LSE has demonstrated that more than twenty percent (20%) of its Adjusted Load Metric is covered by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of Generation resources, the amount of Long Term CRRs that it may nominate is equal to the minimum of: (i) the sum of the owned resources and long-term procurement arrangements of ten (10) years or more and (ii) fifty percent (50%) of the LSE's Adjusted Load Metric.

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Subject to the maximum quantities described above in this Section 36.8.3.1.3.1, an LSE can nominate CRRs sourced at a Trading Hub in Tier LT up to the total MW amount of the Point-to-Point CRRs the LSE was allocated in tiers 1 and 2 as a result of its disaggregated tier 1 and 2 nominations of CRRs sourced at that Trading Hub.

36.8.3.1.3.2 Tier LT for Qualified OBAALSEs.

A Qualified OBAALSE may submit nominations for Long Term CRRs up to fifty percent (50%) of its Adjusted Load Metric for each season, time of use period and Scheduling Point. The Qualified OBAALSE must demonstrate that all of its nominated Long Term CRRs are supported by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of generation resources. Such demonstrations shall be provided by the requesting Qualified OBAALSE to the CAISO through the submission of a written sworn declaration by an executive employee authorized to represent the Qualified OBAALSE attesting to the accuracy of the data demonstration. As necessary, the CAISO may request, and such Qualified OBAALSE must produce in a timely manner, documents in support of such declaration.

36.8.3.1.3.3 Tier LT SFT.

After receiving nominations for Long Term CRRs from LSEs and Qualified OBAALSEs, the CAISO will run SFTs to ensure the feasibility of the nominated Long Term CRRs for the remaining nine years of the ten-year term of the Long Term CRR. The SFT runs in Tier LT will test the feasibility of only the Long Term CRR nominations and will not include in the analysis those Seasonal CRRs allocated in tiers 1 and 2 that are not nominated as Long Term CRRs. The quantity of Long Term CRRs that can be allocated for any season and time of use period must be feasible for the entire ten-year term of the Long Term CRR.

As a result of the Tier LT SFT runs, Long Term CRR nominations may not be fully allocated; however, such a result will not affect the CRR Year One validity of the Seasonal CRR allocated in tiers 1 and 2. The CAISO will inform the nominating entity of the results of the Tier LT SFTs before the deadline for submission of the tier 3 nominations.

36.8.3.1.4 Tier 3. In tier 3, an LSE or a Qualified OBAALSE may nominate and the CAISO will allocate to the LSE or Qualified OBAALSE Seasonal CRRs up to one hundred percent (100%) of its Seasonal CRR Eligible Quantity for each season, minus the quantity of CRRs allocated to that LSE or Qualified OBAALSE in tiers 1 and 2. In tier 3, Sub-LAPs will be eligible CRR Sinks provided that the Sub-LAP is within the nominating LSE's Default LAP. An LSE or a Qualified OBAALSE can nominate Seasonal CRRs sourced at Trading Hubs. In running the SFT the CAISO shall disaggregate the Seasonal CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1. All allocated CRRs that result from such disaggregation will be Point-to-Point CRRs each of whose CRR Source is a Generating Unit PNode that is an element of the Trading Hub. A Qualified OBAALSE can only nominate CRRs from its verified CRR Sources as provided in Section 36.8.3.4.

36.8.3.2 Monthly CRR Allocation for CRR Year One.

The monthly CRR Allocation in CRR Year One shall consist of a sequence of two (2) tiers for each time of use period (on-peak and off-peak). The monthly CRR Allocation will distribute Monthly CRRs to each LSE or Qualified OBAALSE up to one hundred percent (100%) of its Monthly CRR Eligible Quantity, minus CRRs allocated to that LSE or Qualified OBAALSE in the annual CRR Allocation for the relevant month and time of use period. The monthly CRR Allocation for CRR Year One will be conducted as follows:

36.8.3.2.1 Tier 1. In tier 1 of the monthly CRR Allocations, an LSE or a Qualified OBAALSE may nominate and the CAISO will allocate to the LSE or Qualified OBAALSE Monthly CRRs up to fifty percent (50%) of the difference between its Monthly CRR Eligible Quantity and the quantity of Seasonal CRRs and previously allocated Long Term CRRs that apply to that month and time of use period. An LSE or a Qualified OBAALSE can nominate Monthly CRRs sourced at Trading Hubs in accordance with the LSE's or Qualified OBAALSE's verified CRR Sources. In running the SFT the CAISO shall disaggregate the Monthly CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1. All allocated CRRs that result from such disaggregation will be Point-to-Point CRRs each of whose CRR Source is a Generating Unit PNode that is an element of the Trading Hub.

Tier 2. In tier 2 of the monthly CRR Allocations, an LSE or a Qualified OBAALSE may nominate and the CAISO will allocate to the LSE or Qualified OBAALSE Monthly CRRs up to one hundred percent (100%) of the difference between its CRR Eligible Quantity and the quantity of Seasonal CRRs and previously allocated Long Term CRRs that apply to that month and time of use period, minus the quantity of CRRs the entity was allocated in tier 1 of the CRR Year One monthly CRR Allocation. An LSE or a Qualified OBAALSE can nominate Monthly CRRs sourced at Trading Hubs. In running the SFT the CAISO shall disaggregate the Monthly CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1. In tier 2 of the monthly CRR Allocation, Sub-LAPs will be eligible CRR Sinks provided that the Sub-LAP is within the nominating LSE's Default LAP. A Qualfied OBAALSE can only nominate CRRs from its verified CRR Sources as provided in Section 36.8.3.4.2.

36.8.3.3 [NOT USED]

36.8.3.4 Source Verification.

Source verification is required for LSE CRR nominations in tiers 1 and 2 of the CRR Year One annual allocation process and in tier 1 of each CRR Year One monthly allocation process. Source verification is required for all Qualified OBAALSE CRR nominations in all tiers of all CRR Allocation processes.

36.8.3.4.1 CRR Year One Source Verification for LSEs.

In CRR Year One, nominations for tier 1 and tier 2 of the annual CRR Allocation and tier 1 of the monthly CRR Allocations must be source verified for all LSEs. The CAISO will make available, prior to the beginning of the allocation process, a list of allowable CRR Sources to be used in the allocation. An LSE must demonstrate that it could actually submit Bids, including Self-Schedules and Inter-SC Trades, for Energy from the locations to be nominated as CRR Sources to serve its Load either through ownership of, or contractual rights to receive Energy from, the relevant Generating Units, or a contract to take ownership of power at the relevant source such as a Trading Hub or a Scheduling Point. Source verification will use data for the period beginning January 1, 2006 and ending December 31, 2006 as the basis for verification. Such demonstrations shall be provided by the requesting LSE to the CAISO through the submission of a written sworn declaration by an executive employee authorized to represent the LSE and attest to the accuracy of the data demonstration. As necessary, the CAISO may request, and such LSE must produce in a timely manner, documents in support of such declaration.

36.8.3.4.2 Source Verification for Qualified OBAALSEs.

All CRR nominations by Qualified OBAALSEs must be source verified. A Qualified OBAALSE's source verification will be based on its legitimate need showing as specified in Section 36.9.1.

36.8.3.4.3 Calculation of Verified CRR Source Quantity.

The Verified CRR Source Quantity associated with each verified CRR Source for a particular LSE or Qualified OBAALSE will be: (i) for an owned generation resource the PMax of the unit multiplied by the LSE's or Qualified OBAALSE's ownership share; (ii) for a contract with a generation resource, the hourly MWh of Energy specified in the contract averaged over all hours of the relevant time of use period, but no greater than the PMax of the unit; or (iii) for a contract that delivers Energy to a Trading Hub or Scheduling Point, the hourly MWh of energy specified in the contract for delivery from the supplier to the LSE or Qualified OBAALSE at the Trading Hub or Scheduling Point, averaged over all hours of the

relevant time of use period. Energy contracts submitted by an LSE to demonstrate that the LSE can submit Bids, including Self-Schedules and Inter-SC Trades, for Energy from the nominated CRR Sources to serve its Load must be at least one month in duration. Energy contracts submitted by a Qualified OBAALSE to demonstrate that the Qualified OBAALSE can submit Bids, including Self-Schedules and Inter-SC Trades, for Energy from the nominated CRR Sources to serve its Load must be at least one month in duration to support nominations of Monthly and Seasonal CRRs, and at least ten (10) years in duration to support nominations of Long Tem CRRs. Nominations of CRRs for which the CRR Source is a Scheduling Point must be source verified in accordance with Section 36.8.4.2.

36.8.3.4.4 Calculation of Adjusted Verified CRR Source Quantity.

For nominations by an LSE and a Qualified OBAALSE, except for a Qualified OBAALSE's nomination of Long Term CRRs, the CAISO will consider a contract that covers a portion of a season (but not less than one month) to be acceptable verification, with the adjustment described below, for the entire season for which a CRR is nominated. The CAISO will also consider a contract not less than one month in duration that covers portions of two consecutive months to be acceptable verification, with the adjustment described below, for both of the months that are partially covered. In such cases, for a contract that covers only a portion of the season or month for which the LSE or Qualified OBAALSE wishes to nominate source-verified CRRs, the CAISO will calculate an Adjusted Verified CRR Source Quantity, which equals the Verified CRR Source Quantity times the ratio of the number of days covered by the contract for a particular month or season to the total number of days in that month or season, consistent with the time of use period of the CRRs being nominated. Contracts submitted by a Qualified OBAALSE to support nomination of Long Term CRRs must be at least ten (10) years in duration and cover the entire season of the Long Term CRR being nominated, and therefore the Adjusted Verified CRR Source Quantity calculation does not apply to such nominations.

36.8.3.5 Annual CRR Allocation Beyond CRR Year One.

The annual CRR Allocation for years beyond CRR Year One consists of a sequence of four (4) tiers for each season and time of use period (on-peak and off-peak). Allocations of CRRs in each tier are considered final once they are provided by the CAISO to the respective LSEs or Qualified OBAALSEs. After each tier, LSEs or Qualified OBAALSEs will have an amount of time as specified in the Business Practice Manual after their receipt of the results of each tier to submit their nominations for the next tier, if there is one. The annual CRR Allocation will allow LSEs or Qualified OBAALSEs to submit nominations up to their Seasonal CRR Eligible Quantities minus the quantity of previously allocated Long Term CRRs for each season of the relevant year, each time of use period and each CRR Sink at which they serve Load. Annual CRR Allocations for years beyond CRR Year One will be conducted in the following sequence of tiers:

36.8.3.5.1 Tier 1 – Priority Nomination Process.

Tier 1 of the annual CRR Allocation in years beyond CRR Year One will be a Priority Nomination Process through which CRR Holders may nominate some of the same CRRs that they were allocated in the immediately previous year. As provided in Section 36.8.3.4.2, nominations by a Qualified OBAALSE in the PNP are subject to source verification. In all annual CRR Allocations after CRR Year One, an LSE or a Qualified OBAALSE may make PNP nominations up to the lesser of: (1) two-thirds of its Seasonal CRR Eligible Quantity, minus the quantity of previously allocated Long Term CRRs for each season, time of use period and CRR Sink for that year; or, (2) the total quantity of Seasonal CRRs allocated to that LSE in the previous annual CRR Allocation, minus the quantity of previously allocated Long Term CRRs for each season, time of use period and CRR Sink, and minus any reduction for net loss of Load or plus any increase for net gain of Load through retail Load Migration as described in Section 36.8.5.1. In addition,

an LSE's or Qualified OBAALSE's nomination of any particular CRR Source-CRR Sink combination in the PNP may not exceed the MW quantity of CRRs having that CRR Source and CRR Sink that the LSE or Qualified OBAALSE was allocated in the previous annual CRR Allocation for the same season and time of use period, and in the case of an LSE, adjusted for net Load loss or gain resulting from Load Migration as described in Section 36.8.5.2.2. An LSE or a Qualified OBAALSE may not nominate CRRs sourced at Trading Hubs in the PNP. CRRs whose CRR Sink is a Sub-LAP are not eligible for nomination in the PNP. A CRR whose CRR Sink is a Custom LAP or PNode is eligible for nomination in the PNP. PNP Eligible Quantities are not affected by secondary transfers of CRRs, except as performed by the CAISO to reflect Load Migration as described in Section 36.8.5. That is, with the exception of transfers to reflect Load Migration: (i) an LSE or a Qualified OBAALSE may nominate in the PNP a CRR it was allocated in the prior annual CRR Allocation even though it transferred that CRR to another party during the year, and (ii) an LSE or a Qualified OBAALSE may not nominate in the PNP a CRR that it received through a secondary transfer from another party. CRRs received through a CRR Auction are not eligible for nomination in the PNP. CRRs received as Offsetting CRRs to reflect Load Migration are not eligible for nomination in the PNP. The maximum quantity of CRRs that an LSE or a Qualified OBAALSE may nominate in the PNP is fifty percent (50%) of its Adjusted Load Metric, minus any previously allocated Long Term CRRs that are valid for the term of the CRRs being nominated. The CAISO does not guarantee that all CRR nominations in the PNP will be allocated. The CAISO will conduct an SFT to determine whether all CRR nominations in the PNP are simultaneously feasible. If the SFT determines that all priority nominations are not simultaneously feasible, the CAISO will reduce the allocated CRRs until simultaneous feasibility is achieved.

36.8.3.5.2 Tier LT.

In years subsequent to CRR Year One, Long Term CRRs will be allocated as provided in this section.

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36.8.3.5.2.1 Tier LT for LSEs.

In Tier LT of CRR Year Two, an LSE may nominate Long Term CRRs from any of the Seasonal CRRs it was allocated in the PNP up to a maximum of thirty percent (30%) of the its Adjusted Load Metric, minus the quantity of previously allocated Long Term CRRs that are valid for that year; except that the LSE may nominate Long Term CRRs in amounts greater than thirty percent (30%) but no more than fifty percent (50%) of its Adjusted Load Metric if the LSE demonstrates that more than thirty percent (30%) of its Adjusted Load Metric is covered by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of Generation resources. Such demonstrations shall be provided by the requesting LSE to the CAISO through the submission of a written sworn declaration by an executive employee authorized to represent the LSE and attest to the accuracy of the data demonstration. As necessary, the CAISO may request, and such LSE must produce in a timely manner, documents in support of such declaration. If the LSE has demonstrated that more than thirty percent (30%) of its Adjusted Load Metric is covered by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of Generation resources, the amount of Long Term CRRs that it may nominate is equal to the minimum of: (i) the sum of the owned resources and long-term procurement arrangements of ten (10) years or more, minus the quantity of previously allocated Long Term CRRs that are valid for that CRR year, and (ii) fifty percent (50%) of the LSE's Adjusted Load Metric, minus the quantity of previously allocated Long Term CRRs that are valid for that CRR year. In CRR Year Three, the limit on Long Term CRR nominations will increase by ten percent (10%) to forty percent (40%) of the eligible entity's Adjusted Load Metric but shall not exceed fifty percent (50%) of the Adjusted Load Metric.

In CRR Year Three, an LSE may exceed the forty percent (40%) limit on Long Term CRR nominations if it demonstrates that its Adjusted Load Metric is covered by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of Generation resources. The amount of Long Term CRRs that it may nominate is equal to the minimum of: (i) the sum of the owned resources and long-term procurement arrangements of ten (10) years or more, minus the quantity of previously allocated Long Term CRRs that are valid for that CRR year, and (ii) fifty percent (50%) of the LSE's Adjusted Load Metric, minus the quantity of previously allocated Long Term CRRs that are valid for that CRR year. In CRR Year Four and all subsequent years, an LSE may nominate Long Term CRRs from any of the Seasonal CRRs allocated in the PNP up to the maximum of fifty percent (50%) of its Adjusted Load Metric, minus the quantity of previously allocated Long Term CRRs that are valid for that year.

36.8.3.5.2.2 Tier LT for Qualified OBAALSEs.

A Qualified OBAALSE may submit nominations for Long Term CRRs up to the portion of its Adjusted Load Metric for which it has demonstrated coverage by a combination of long-term procurement arrangements of ten (10) years or greater and ownership of generation resources, up to a maximum of fifty percent (50%) of its Adjusted Load Metric for each season, time of use period and Scheduling Point, minus the quantity of previously allocated Long Term CRRs that are valid for that CRR year. Such demonstrations shall be provided by the requesting Qualified OBAALSE to the CAISO through the submission of a written sworn declaration by an executive employee authorized to represent the Qualified OBAALSE and attest to the accuracy of the data demonstration. As necessary, the CAISO may request, and such Qualified OBAALSE must produce in a timely manner, documents in support of such declaration. Contracts submitted in support of OBAALSE nominations of Long Term CRRs must cover the entire season of the Long Term CRR being nominated.

36.8.3.5.2.3 Tier LT SFT.

After receiving nominations for Long Term CRRs, the CAISO will run SFTs to ensure the feasibility of the nominated Long Term CRRs for the remaining nine years of the ten (10) year term of the Long Term CRR. The SFT run in Tier LT will test the feasibility of only the Long Term CRR nominations and will not include in the analysis those Seasonal CRRs allocated in the PNP that were not nominated as Long Term CRRs. The quantity of Long Term CRRs that can be allocated for any season and time of use period must be feasible for the entire ten (10) year term of the Long Term CRR. As a result of the Tier LT SFT runs, Long Term CRR nominations may not be fully allocated; however, such a result will not affect the validity of: (i) the Long Term CRRs allocated in previous years, or (ii) the Seasonal CRRs allocated in the PNP. The CAISO will inform nominating eligible entities of the results of the Tier LT SFTs before the deadline for submission of the tier 2 nominations.

- **36.8.3.5.3 Tier 2.** In tier 2 of the annual CRR Allocation, the CAISO will allocate Seasonal CRRs to each LSE and Qualfied OBAALSE up to two-thirds of its Seasonal CRR Eligible Quantity for each season, time of use period and CRR Sink, minus the quantity of: (i) CRRs allocated to that LSE or Qualified OBAALSE in tier 1, and (ii) Long Term CRRs previously allocated to it that are valid for the CRR term currently being allocated. An LSE or a Qualified OBAALSE can nominate Seasonal CRRs sourced at Trading Hubs. In running the SFT the CAISO shall disaggregate the Seasonal CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1.
- **36.8.3.5.4 Tier 3.** In tier 3 of the annual CRR Allocation, the CAISO will allocate Seasonal CRRs to each LSE or Qualified OBAALSE up to one hundred percent (100%) of its Seasonal CRR Eligible Quantity for each season, time of use period and CRR Sink, minus the quantity of: (i) CRRs allocated to that LSE or Qualified OBAALSE in tiers 1 and 2, and (ii) Long Term CRRs previously allocated to that eligible entity that are valid for the CRR term currently being allocated. In tier 3 of the annual CRR Allocation, Sub-LAPs will be eligible CRR Sinks provided that the Sub-LAP is within the nominating LSE's

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Default LAP. An LSE or a Qualified OBAALSE can nominate Seasonal CRRs where the CRR Source is a Trading Hub. In running the SFT the CAISO shall disaggregate the Seasonal CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1.

36.8.3.5.5 Alternatives for Renewal of Long Term CRRs and for the Transition of Expiring ETCs and Converted Rights to Long Term CRRs.

Eligible entities may, in the final year of a Long Term CRR, nominate the identical CRR Source, CRR Sink, and MW terms of the expiring Long Term CRR in the PNP conducted that year, subject to any applicable quantity limitations specified in this Section 36. An eligible entity with an Existing Transmission Contract or Converted Rights that expire by the start of the year for which the CRR Allocation process is conducted may participate in the PNP as if its Existing Transmission Contract or Converted Rights sources and sinks were previously allocated Seasonal CRRs, subject to any applicable quantity limitations specified in this Section 36. In either case, if Seasonal CRRs are awarded to an LSE or a Qualified OBAALSE in the PNP based on its nomination of its expiring rights, such entity may then nominate those Seasonal CRRs in Tier LT of the same year's annual CRR Allocation process, subject to any applicable quantity limitations specified in this Section 36. Alternatively, CRR Holders of expiring LT CRRs, expiring Existing Transmission Contracts or expiring Converted Rights may bypass the tier 1 Priority Nomination Process and nominate their expiring rights as Long Term CRRs in Tier LT one year prior to the year of expiration, subject to any applicable quantity limitations specified in this Section 36. This alternative allows the holder of the expiring rights to nominate Long Term CRRs in the first Tier LT SFT in which the capacity corresponding to the expiring rights becomes available for the full nine (9) year period of the Tier LT SFT. For any entity who elects this alternative and obtains an allocated Long Term CRR, the length of the renewed Long Term CRR (or initial Long Term CRR in the case of expiring Existing Transmission Contracts or expiring Converted Rights) will be nine (9) years, corresponding to the years included in the Tier LT SFT.

36.8.3.6 Monthly CRR Allocation Beyond CRR Year One.

The monthly CRR Allocation shall consist of a sequence of two (2) tiers of allocations for each time of use period (on-peak and off-peak). The monthly CRR Allocation will distribute Monthly CRRs and will allow an LSE and a Qualified OBAALSE to nominate CRRs up to one hundred percent (100%) of its Monthly CRR Eligible Quantity, minus the total of any Seasonal CRRs allocated in the annual CRR Allocation, and minus any holdings of Long Term CRRs that are valid for the month and time of use of the CRRs being nominated. All CRR nominations by Qualified OBAALSEs must be source verified.

Tier 1. In tier 1 of the monthly CRR Allocations, each LSE or Qualified OBAALSE may nominate Monthly CRRs up to fifty percent (50%) of the difference between its Monthly CRR Eligible Quantity and the total of any Seasonal CRRs allocated in the annual CRR Allocation and any holdings of Long Term CRRs that are valid for the month and time of use of the CRRs being nominated. An LSE or a Qualified OBAALSE can nominate Monthly CRRs where the CRR Source is a Trading Hub. In running the SFT the CAISO shall disaggregate the Monthly CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1.

Tier 2. In tier 2 of the monthly CRR Allocations, each LSE or Qualified OBAALSE may nominate Monthly CRRs up to one hundred percent (100%) of the difference between its Monthly CRR Eligible Quantity and the total of any Seasonal CRRs allocated in the annual CRR Allocation and any holdings of Long Term CRRs that are valid for the month and time of use of the CRRs being nominated, minus the quantity of CRRs allocated to that LSE or Qualified OBAALSE in tier 1 of the current monthly CRR Allocation. In tier 2 of the monthly CRR Allocation, Sub-LAPs will be eligible CRR Sinks, provided that the Sub-LAP is within the nominating LSE's Default LAP. An LSE or a Qualified OBAALSE can nominate Monthly CRRs sourced at Trading Hubs. In running the SFT the CAISO shall disaggregate the Monthly CRR nominations sourced at Trading Hubs as described in Section 36.8.4.1.

36.8.4 Eligible Sources for CRR Allocation.

In the CRR Allocation processes for Seasonal CRRs, Monthly CRRs, and Long Term CRRs, nominated CRR Sources can be either PNodes (including Scheduling Points) or Trading Hubs. An LSE or a Qualified OBAALSE may nominate up to one hundred percent (100%) of its Adjusted Verified CRR Source Quantities for Seasonal or Monthly CRRs in the combined tiers of the annual and monthly CRR Allocation processes as provided in this Section. For tiers 1 and 2 of the annual CRR Allocation in CRR Year One, an LSE may nominate CRRs from each of its verified CRR Sources in a quantity no greater than seventy-five percent (75%) of the Adjusted Verified CRR Source Quantity corresponding to each verified CRR Source. The LSE may then use tier 1 of the monthly CRR Allocations in CRR Year One to nominate up to the full one hundred percent (100%) of the Adjusted Verified CRR Source Quantity corresponding to each verified CRR Source. In tiers 1, 2 and 3 of the annual CRR Allocation in each year in which it participates, a Qualified OBAALSE may nominate CRRs from each of its verified CRR Sources in a quantity no greater than seventy-five percent (75%) of the Adjusted Verified CRR Source Quantity corresponding to each CRR Source. The Qualified OBAALSE may then use tiers 1 and 2 of the monthly CRR Allocations in the same year to nominate up to the full one hundred percent (100%) of the Adjusted Verified CRR Source Quantity corresponding to each CRR Source Quantity corresponding to each verified CRR Source Quantity corresponding to each Verified CRR Source.

36.8.4.1 CRRs with Trading Hub Sources.

For purposes of the CRR Allocation processes the CAISO shall disaggregate CRR nominations with Trading Hub CRR Sources into Point-to-Point CRR nominations each of whose CRR Source is a Generating Unit PNode that is an element of the Trading Hub. In performing this disaggregation the MW quantity of each Point-to-Point CRR nomination will equal the MW quantity of the CRR nomination multiplied by the weighting factor of the corresponding Generating Unit PNode in the defined Trading Hub. The disaggregated, individual Point-to-Point CRRs will be used by the CAISO in conducting the SFTs for the nominated CRRs. In CRR years other than CRR Year One, an LSE may nominate in the

PNP any Point-to-Point CRRs it was allocated the previous year as a result of Seasonal CRR nominations with Trading Hubs as CRR Sources, and may then nominate those Seasonal CRRs awarded in the PNP as Long Term CRRs in Tier LT. In CRR Year One, an LSE that was allocated individual Point-to-Point CRRs in tiers 1 and 2 as a result of nominating CRRs sourced at a Trading Hub must nominate CRRs sourced at Trading Hubs in Tier LT in accordance with Section 36.8.3.1.3.1. For Qualified OBAALSEs, all nominated CRR Sources must be source verified as specified in Section 36.9.1. Any Long Term CRRs allocated by the CAISO as a result of nominations of CRRs sourced at Trading Hubs will be Point-to-Point CRRs each of whose CRR Sources is a Generating Unit PNode that is an element of the Trading Hub.

36.8.4.2 Import CRRs.

An LSE or a Qualified OBAALSE may nominate Seasonal, Monthly or Long Term CRRs whose CRR Source is a Scheduling Point in the annual and monthly CRR Allocation in accordance with this Section.

36.8.4.2.1 Scheduling Points as CRR Sources for LSEs in CRR Year One.

In CRR Year One, in tiers 1 and 2 of the annual CRR Allocation process an LSE may nominate Seasonal CRRs whose CRR Source is a Scheduling Point to the extent that it can demonstrate to the CAISO that, for the verification period stated in Section 36.8.3.4, it owned or was a party to a contract with a System Resource, and that it or the counter-party to the contract had procured appropriate transmission from the applicable transmission provider outside the CAISO to the Scheduling Point. In addition, also in tiers 1 and 2 of the annual CRR Allocation in CRR Year One, all LSEs eligible to nominate CRRs under this Section 36.8 may nominate as CRR Sources, without any verification, shares of the residual import CRR capacity at each Scheduling Point that remains after the completion of the CRR Source verification process. Each LSE's share of the residual import CRR capacity will be calculated as follows. Starting

with the total capacity at each Scheduling Point that is available in the DC FNM for the annual CRR Allocation and CRR Auction processes, the CAISO will calculate the residual amount of capacity that remains at each Scheduling Point after subtracting the capacity accounted for by those Scheduling Point CRR Sources submitted by LSEs for verification that have been verified. The CAISO will then set aside fifty percent (50%) of this residual amount at each Scheduling Point for the annual CRR Auction, and will allow LSEs to nominate pro rata shares of the other fifty percent (50%) in proportion to their Seasonal CRR Eligible Quantities. In each monthly CRR Allocation during CRR Year One, CRR Source verification will be required in tier 1 as in the annual CRR Allocation process. Following the verification process, the CAISO will calculate and set aside for the monthly CRR Auction fifty percent (50%) of the import capacity that remains at each Scheduling Point after accounting for the verified Scheduling Point CRR Source submissions to the monthly process and the annual CRR Allocation and CRR Auction results for that month, and will allow LSEs to nominate in tier 1 Monthly CRRs with CRR Sources at each Scheduling Point in quantities up to their pro rata shares of the other fifty percent (50%) in proportion to their Monthly CRR Eligible Quantities.

36.8.4.2.2 Scheduling Points as CRR Sources for LSEs Beyond CRR Year One.

In the annual CRR Allocation processes subsequent to CRR Year One, there will be no special provisions regarding CRR Sources at Scheduling Points in tiers 1 and 2 for LSEs. For tier 3 the CAISO will calculate and set aside for the annual CRR Auction fifty percent (50%) of the import capacity at each Scheduling Point that remains after the tier 1 and tier 2 CRR Allocations and after considering any previously allocated Long Term CRRs that are valid for that month as described in Section 36.4.1. In the monthly

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CRR Allocation processes subsequent to CRR Year One there will be no special provisions regarding CRR Sources at Scheduling Points in tier 1 for LSEs. For tier 2 the CAISO will calculate and set aside for the monthly CRR Auction fifty percent (50%) of the import capacity that remains at each Scheduling Point after accounting for the annual CRR Allocation and CRR Auction results for that month, any previously allocated Long Term CRRs that are valid for that month, and the results of tier 1 of the monthly CRR Allocation.

36.8.4.2.3 Scheduling Points as CRR Sources for Qualified OBAALSEs.

In the annual CRR Allocation process a Qualified OBAALSE may nominate CRRs whose CRR Source is a Scheduling Point to the extent it meets the requirements of Section 36.9.1.

36.8.5 Load Migration Between LSEs.

The CAISO shall track Load Migration between LSEs through Load Migration data provided to the CAISO by each UDC, MSS Operator or other entity that provides distribution serve to customers. Load Migration will be reflected in the hourly Load data and Load forecasts used by the CAISO to calculate the CRR Load Metrics and Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities for each LSE, in accordance with procedures set forth in the applicable Business Practice Manual. Load Migration will be reflected in appropriate adjustments to each affected LSE's Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities in subsequent annual and monthly CRR Allocations, as well as its PNP Eligible Quantities in the next annual CRR Allocation. LSEs that hold Seasonal CRRs or Long Term CRRs and that lose or gain Load through Load Migration must comply with Section 36.8.5.3 regarding the transfers of current CRR holdings to reflect Load Migration.

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36.8.5.1 Tracking of Load Migration by CAISO.

The CAISO will implement all appropriate adjustments due to Load Migration on a monthly basis. In order to enable the CAISO to track Load Migration and determine the appropriate adjustments, each UDC, MSS Operator, and other entity that provides distribution service to customers will provide to the CAISO the following minimum information on each customer that migrates between LSEs: (i) customer identification information, (ii) information to establish the customer's retail customer class, (iii) the original and new LSEs serving the customer, (iv) the effective date of the Load Migration, and (v) the most recent twelve (12) months of billing data for the customer. Each UDC, MSS Operator and other entity that provides distribution service to customers will also provide to the CAISO the number of customers served by each LSE in each retail customer class as of the start of each month, plus information on the average consumption by customers in each retail customer class. Further details regarding the information to be supplied to the CAISO is set forth in the applicable Business Practice Manual. The CAISO will receive information from each UDC, MSS Operator, and other entity providing distribution service on an ongoing daily basis, and will perform the calculations for any appropriate adjustments due to Load Migration on a monthly basis. New CRRs allocated due to Load Migration in accordance with Section 36.8.5.3 will be made effective on the first day of the first month, following the CAISO's performance of the calculations, in which the Load Migration is effective by the first of the month.

36.8.5.2 Adjustments to CRR Eligible Quantities to Reflect Load Migration.

An LSE who loses or gains net Load through Load Migration in a given year will have its Seasonal CRR Eligible Quantities in the next annual CRR Allocation reduced or increased, respectively, in proportion to the net Load lost or gained through Load Migration. In addition, an LSE that loses Load through Load Migration in a given year will have its PNP Eligible Quantities reduced in proportion to the gross amount of Load lost through Load Migration. An LSE that gains Load through Load Migration in a given year will have its PNP Eligible Quantities increased in proportion to the amount of Load gained through Load Migration.

36.8.5.3 Adjustments to Current CRR Holdings to Reflect Load Migration.

Because in between CRR Allocations each LSE can both lose Load and gain Load between itself and multiple other LSEs, the CAISO will calculate and perform appropriate adjustments to current CRR holdings for each pair of LSEs affected by Load Migration to reflect the net amount of Load that migrated between those two LSEs during each Load Migration tracking period and for each LAP in which the LSEs serve Load. The CAISO will perform such calculations in accordance with the appropriate Business Practice Manual, and will perform the adjustments by creating and allocating equal and opposite sets of new CRRs for each pair of LSEs affected by Load Migration. The net Load gaining LSE of the pair will receive a set of new CRRs that match the CRR Sources and CRR Sinks of all the Seasonal CRRs and Long Term CRRs previously allocated to the net Load losing LSE of the pair, in MW quantities proportional to the net amount of the net Load losing LSE's Load that migrated to the net Load gaining LSE of the pair within each LAP in which the LSEs serve Load. The net Load losing LSE of the pair will receive a set of new Offsetting CRRs. After the assignment of Offsetting CRRs, the net Load losing LSE will still hold the CRRs it held before it was assigned the Offsetting CRRs. The Load gaining LSE may nominate its new Seasonal CRRs in the Priority Nomination Process of the next annual CRR Allocation process. The net Load losing LSE may not nominate in the Priority Nomination Process either: (i) the Seasonal CRRs corresponding to the new CRRs allocated to the Load gaining LSE, or (ii) the Offsetting CRRs allocated due to Load Migration. An LSE to which the CAISO allocates new CRRs to reflect Load Migration must be either a Candidate CRR Holder or a CRR Holder and meet all requirements applicable to such entities.

36.8.5.4 Load Migration and Compliance with CAISO Credit Requirements.

To the extent that the credit requirements of an LSE as specified in Section 12 are updated by the allocation of new CRRs to reflect Load Migration, the CAISO will do the following. For new CRRs that result in net charges to the affected LSE over a Settlement period these charges will appear on the LSE's Settlement Statement irrespective whether the LSE has met the updated credit requirement. For new CRRs that result in net payments to the affected LSE over a Settlement period and that LSE has not met the updated credit requirements affected by the allocation of new CRRs to reflect Load Migration, the CAISO shall withhold payment until those updated credit requirements are met. At the end of each Settlement period, if the LSE has not met the updated credit requirements resulting from Load Migration CRR transfers, the CAISO will add any net payments that accrued to the transferred CRRs to the CRR Balancing Account to be included in the end-of-month clearing of the CRR Balancing Account, and those net payments will no longer be recoverable by the LSE. The CAISO may place new allocated CRRs into CRR Auctions if the non-compliance with credit or applicable Financial Security requirements is persistent.

36.8.5.5 Load Migration Adjustment for CRR Year One.

For the CRR Year One CRR Allocation process, the CAISO will account for the cumulative Load Migration that takes place between the beginning of the CRR Year One CRR Allocation process and the first date that the Day-Ahead Market is operational as a single adjustment as described in the Business Practice Manuals.

36.8.5.6 Load Migration Reflected in the Monthly CRR Allocation Process.

An LSE who loses or gains net Load through Load Migration must reflect that loss or gain in the monthly Load forecasts it submits to the CAISO for determining its monthly CRR Eligible Quantities for future monthly CRR Allocations.

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36.8.6 Load Forecasts Used to Calculate CRR MW Eligibility.

The CAISO will work closely with appropriate state and Local Regulatory Authorities and agencies to ensure that historical Load data and Load forecasts used to establish Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities are consistent with the Load data and Load forecasts used to establish resource adequacy requirements.

36.8.7 Long Term CRRs and Participating TO Withdrawals from the CAISO Controlled Grid.

In the event a Participating TO gives the required notice and withdraws facilities or Entitlements from the CAISO Controlled Grid, the CAISO will reconfigure Long Term CRRs as necessary to reflect the CAISO Controlled Grid after the withdrawal. After reconfiguration, the CAISO will run SFTs on the reconfigured Long Term CRRs and, if necessary, reduce some of the reconfigured Long Term CRRs to ensure their feasibility. If the CRR Source and CRR Sink for an allocated Long Term CRR both are located within a departing Participating TO Service Territory, the Long Term CRR would expire on the effective date of the Participating TO's withdrawal.

36.9 CRR Allocation to OBAALSEs.

OBAALSEs who wish to nominate and be allocated CRR Obligations in the same annual and monthly CRR Allocation processes described in Section 36.8 may do so subject to the provisions of this Section 36.9 and if such OBAALSEs are qualified and registered as Candidate CRR Holders or CRR Holders. An OBAALSE may participate in the CRR Allocation processes and be allocated CRRs to the extent that: (1) such OBAALSE makes a showing of legitimate need for the CRRs nominated as provided by Section 36.9.1;

(2) such OBAALSE pre-pays or commits to pay the appropriate Wheeling Access Charge in the amount of MWs of CRRs nominated as provided in Section 36.9.2; (3) the external load for which CRRs are nominated will be exposed to CAISO Congestion charges because it is not served by Supply resources other than exports from the CAISO Balancing Authority Area; (4) the external load for which CRRs are nominated is not served through an ETC, TOR or Converted Rights by which it has been designated as eligible to receive the reversal of Congestion charges; (5) such OBAALSE complies with the verification requirements in Section 36.9.4; and (6) the nominated CRRs clear the relevant SFTs. An OBAALSE that participates in the CRR Allocation processes will be subject to the applicable rules governing the tiered structure of these processes. All CRRs allocated under the terms of this Section 36.9 will be CRR Obligations.

36.9.1 Showing of Legitimate Need.

An OBAALSE must make a showing to the CAISO of legitimate need to enable the CAISO to verify the CRR Sources it wants to nominate. All CRR nominations by OBAALSEs in all CRR years must be source verified based on the showing of legitimate need. The CAISO's verification of legitimate need will be based on demonstration by the OBAALSE of an executed Energy contract from a Generating Unit or System Resource that covers the time period of the CRRs nominated, or ownership of such Generating Unit or System Resource. For such CRR Sources the showing of legitimate need must be made for each CRR term for which the OBAALSE wants to nominate CRRs in a timely manner prior to the start of the relevant annual or monthly CRR Allocation process. For CRR Sources that will be verified based on generating resources located outside the CAISO Balancing Authority Area, a Scheduling Point must be nominated as the corresponding CRR Source. Generating resources located outside of the CAISO Balancing Authority Area to be used by the OBAALSE to verify a Scheduling Point as a CRR Source must not be located within the OBAALSE's own Balancing Authority Area. The Verified CRR Source Quantity and Adjusted Verified CRR Source Quantity corresponding to any CRR Source nominated by an

OBAALSE will be calculated in accordance with Section 36.8.3.4, with the modification that for an OBAALSE these quantities will be calculated for each CRR Allocation process in which the Qualified OBAALSE wants to participate, consistent with the requirement for ongoing source verification based on a forward showing in conjunction with the OBAALSE's annual showing of legitimate need. For a CRR Source that is a Scheduling Point, pursuant to the legitimate need showing requirement, an OBAALSE must demonstrate that it has procured the appropriate transmission service from the transmission provider outside the CAISO Balancing Authority Area to the Scheduling Point that the OBAALSE intends to nominate as a CRR Source for the term of the CRR being nominated. Such demonstrations shall be provided by the OBAALSE to the CAISO through the submission of a written sworn declaration by an executive employee authorized to represent the OBAALSE and attest to the accuracy of the data demonstration. As necessary, the CAISO may request, and such OBAALSE must produce in a timely manner, documents in support of such declaration.

36.9.2 Prepayment of Wheeling Access Charges.

36.9.2.1 Prepayment of Wheeling Access Charges for Allocated CRRs.

An OBAALSE will be required to prepay relevant Wheeling Access Charges, to be calculated as described in this section and further specified in the Business Practice Manual, for the full term of the Monthly CRRs, Seasonal CRRs and Long Term CRRs it intends to nominate in order to participate in the CRR Allocation processes and be allocated CRRs. To be eligible for the allocation of Seasonal CRRs or Monthly CRRs the OBAALSE must submit the full required prepayment and have it accepted by the CAISO prior to the OBAALSE's submission of nominations for the relevant annual or monthly CRR Allocation, except as provided below in Section 36.9.2.2. To be eligible for nominations of Long Term CRRs, the OBAALSE must submit the full prepayment and have it accepted by the CAISO prior to the OBAALSE's submission of nominations of Long Term CRRs in Tier LT, except as provided below in

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Section 36.9.2.2. For each MW of Monthly CRR, Seasonal CRR or Long Term CRR to be nominated the nominating OBAALSE must prepay one MW of the relevant Wheeling Access Charge, which equals the per-MWh WAC that is associated with the Scheduling Point the OBAALSE intends to nominate as a CRR Sink and that is expected at the time the CRR Allocation process is conducted to be applicable for the period of the CRR nominated, times the number of hours comprising the period of the CRR nominated as further specified in the applicable Business Practice Manual.

36.9.2.2 Eligibility for Prepayment of WAC on an Annual or Monthly Basis.

An OBAALSE deemed creditworthy pursuant to the requirements of Section 12 may elect to prepay the determined WAC responsibility on a monthly basis for the Seasonal CRRs or Long Term CRRs that it seeks to be allocated, provided that such OBAALSE has demonstrated a commitment to pay the required WAC for the entire term of the CRRs sought by submitting to the CAISO a written sworn statement by an executive that can bind the entity. In order to be eligible for this option, the OBAALSE must submit and the CAISO must accept this sworn statement prior to the applicable CRR Allocation process in which the OBAALSE intends to nominate a CRR. An OBAALSE choosing to pay on a monthly basis shall make its monthly payments on a schedule specified in the applicable Business Practice Manual. An OBAALSE deemed creditworthy pursuant to the requirements of Section 12 may also elect to prepay its determined WAC responsibility associated with an allocated Long Term CRR on an annual basis, provided that such OBAALSE has demonstrated a commitment to pay for the entire term of the Long Term CRRs sought by submitting to the CAISO and the CAISO accepting a written sworn statement by an executive that can bind the entity. An OBAALSE choosing to pay such WAC obligation on an annual basis shall make its payment each year on a schedule specified in the applicable Business Practice Manual.

36.9.2.3 Refund of Prepaid WAC for Unallocated CRRs.

To the extent that an OBAALSE prepays a quantity of the WAC and is not allocated the full amount of CRRs nominated, WAC prepayment for CRRs not allocated will be refunded by the CAISO within thirty (30) days following the completion of the relevant CRR Allocation process.

36.9.3 CRR Eligible Quantities.

The CAISO will calculate the Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities for OBAALSEs as described in Section 36.8.2 with the following modifications. The OBAALSE must submit two (2) sets of hourly data from which the CAISO will construct Load duration curves for determining the Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities. One set of hourly data must reflect the OBAALSE's historical hourly exports at the Scheduling Point that is the CRR Sink of the nominated CRRs. The historical hourly exports shall be based on the tagged Real-Time Interchange Export Schedules for the OBAALSE. An OBAALSE that wishes to nominate multiple Scheduling Points as CRR Sinks in the CRR Allocation process will have distinct CRR Eligible Quantities for each nominated Scheduling Point, and prior to each annual CRR Allocation process must submit historical hourly export data at each such Scheduling Point from which the CAISO will calculate the associated CRR Eligible Quantities. The second set of hourly data must reflect the prior year's hourly metered Load for the end-use customers the OBAALSE served outside the CAISO Balancing Authority Area and that were not served from sources other than exports from the CAISO Balancing Authority Area. The OBAALSE's Seasonal and Monthly CRR Eligible Quantities will be based on the lesser of (1) the total historical hourly export data for all Scheduling Points submitted as CRR Sinks, and (2) the hourly metered load for the external end-use customers served by the OBAALSE and that were not served from sources other than exports from the CAISO Balancing Authority Area. An OBAALSE also must demonstrate that it has firm transmission rights pursuant to the tariffs of intervening transmission providers from its Scheduling Point sink to the end-use customers in the OBAALSE's Balancing Authority Area. The

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OBAALSE shall support its data submission and the demonstration of transmission rights to its end-use customers with a sworn affidavit by an executive employee authorized to represent the OBAALSE and attest to the accuracy of the data and demonstration. As necessary, the CAISO may request, and such OBAALSE must produce in a timely manner, the raw data and calculations used to develop the submitted data set and the demonstration of transmission rights to its end-use customers.

36.9.4 Eligible CRR Sources and Sinks.

Eligible CRR Sources will be the PNodes of the Generating Units or Scheduling Points for which the OBAALSE has made a legitimate need showing as described above in Section 36.9.1. Eligible CRR Sinks will be the Scheduling Points for which the CAISO has established Seasonal and Monthly CRR Eligible Quantities as described in Section 36.9.3. An OBAALSE nominating CRRs having CRR Sources internal to the CAISO Balancing Authority Area will be limited to seventy-five percent (75%) of each of its corresponding Adjusted Verified CRR Source Quantities in all tiers of the annual CRR Allocation process in CRR Year One and in subsequent years. An OBAALSE nominating CRRs having CRR Sources external to the CAISO Balancing Authority Area will be limited to seventy-five percent (75%) of each of its corresponding Adjusted Verified CRR Source Quantities in all tiers of the annual CRR Allocation process in CRR Year One. In CRR years subsequent to CRR Year One, the OBAALSE may renew previously allocated CRRs having external CRR Sources, subject to the applicable quantity limitations and other requirements specified in this Section 36.

36.9.5 Priority Nomination Process.

CRRs allocated pursuant to this Section 36.9 shall be eligible for nomination in the Priority Nomination Process to the extent that the requirements of this Section 36.9 are met at the time of the relevant CRR Allocation.

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36.10 CRR Allocation to Metered Subsystems.

An MSS Operator that elects gross Settlement may participate in the CRR Allocation processes and be allocated CRR Obligations. An MSS Operator that elects net Settlement may participate in the CRR Allocation processes and be allocated CRRs, except that its Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities will reflect its net Load and its allocated CRRs will use MSS-LAPs as CRR Sinks. The MSS Operator will be required to submit to the CAISO the appropriate hourly historical net Load data and net Load forecast data from which the CAISO will construct net Load duration curves to determine the Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities.

36.11 CRR Allocation to Merchant Transmission Facilities.

Project Sponsors of Merchant Transmission Facilities who turn such facilities over to CAISO Operational Control and do not recover the cost of the transmission investment through the CAISO's Access Charge or WAC or other regulatory cost recovery mechanism may be allocated, at the Project Sponsor's election, either CRR Options or CRR Obligations that reflect the contribution of the facility to grid transfer capacity as determined below.

36.11.1 Eligibility for Merchant Transmission CRRs.

The Project Sponsor of a Merchant Transmission Facility shall be entitled to receive Merchant Transmission CRRs as determined in accordance with this Section 36.11. A Merchant Transmission CRR allocated through this process is effective for thirty (30) years or for the pre-specified intended life of the Merchant Transmission Facility, whichever is less. Merchant Transmission CRRs represent binding commitments for thirty (30) years or for the pre-specified intended life of the Merchant Transmission Facility, whichever is less. The binding commitment by a CRR Holder that holds Merchant Transmission CRRs may not be terminated or otherwise modified by the CRR Holder prior to the end of the term of the Merchant Transmission CRR.

36.11.2 Procedure for Allocating Merchant Transmission CRRs.

No less than forty-five (45) days prior to the in-service date of a Merchant Transmission Facility, the Project Sponsor of the facility will inform the CAISO of the In-Service Date of the facility and that the Project Sponsor will be requesting Merchant Transmission CRRs associated with the Merchant Transmission Facility. The CAISO will complete the Merchant CRR Allocation after the In-Service Date of the facility and will allocate Merchant Transmission CRRs whose payment stream will be retroactive back to the In-Service Date.

36.11.3 Determination of Merchant Transmission CRRs to be Allocated to a Project Sponsor of a Merchant Transmission Facility.

36.11.3.1 Nominations of Merchant Transmission CRRs.

The Project Sponsor of a Merchant Transmission Facility must submit nominations for Merchant Transmission CRRs at least twenty-one (21) days prior to the In-Service Date of the facility. The Project Sponsor may nominate up to five (5) individual, Point-to-Point CRRs for each of the two (2) on-peak and off-peak time of use periods. Each of the individual, point-to-point nominations must specify: (i) a single CRR Source location; (ii) a single CRR Sink location, (iii) a MW quantity; (iv) a time of use period (on-peak or off-peak); and (v) a CRR type, either CRR Options or CRR Obligations.

36.11.3.2 Methodology to Determine Merchant Transmission CRRs.

The CAISO shall determine the incremental Merchant Transmission CRRs associated with a Merchant Transmission Facility pursuant to this Section 36.11.3.2. The determination will include an assessment of the simultaneous feasibility of the incremental Merchant Transmission CRRs and all other outstanding CRRs. The CAISO will determine the feasible incremental Merchant Transmission CRRs using a three-step process.

36.11.3.2.1 Step One: the Capability of the Existing Transmission System.

In step one the CAISO will determine the base CRR capability of the system using a Simultaneous Feasibility Test that incorporates as Fixed CRRs all existing Encumbrances through the end of the CRR year for which the annual CRR Allocation and CRR Auction processes have already been conducted, including Encumbrances for the month covered by the most recently conducted monthly CRR Allocation and CRR Auction processes. This analysis will determine the extent to which the nominated Merchant Transmission CRRs are feasible on the existing transmission system absent the Merchant Transmission Facility. As a result of this analysis, the CAISO will create temporary test CRR Options to reserve grid capacity that the Project Sponsor of the Merchant Transmission Facility is not eligible to receive. The temporary test CRR Options will have the same CRR Source and CRR Sink pairs as the Merchant Transmission CRR nominations submitted by the Project Sponsor.

36.11.3.2.2 Step Two: Mitigation of Impacts on Existing Encumbrances.

In the second step, the CAISO will add the proposed Merchant Transmission Facility to the DC FNM and run a SFT using the Fixed CRRs. The second step will ensure that the addition of a Merchant Transmission Facility does not negatively impact any existing Encumbrances through the end of the CRR year for which the annual CRR Allocation and Auction process for Annual CRRs has already been conducted, including encumbrances for the month covered by the most recently conducted monthly CRR Allocation and CRR Auction processes. For any impacts identified in this step the Project Sponsor of the Merchant Transmission Facility will be required to mitigate the impacts for the same period. The mitigation can include having the Project Sponsor of the Merchant Transmission Facility hold counterflow CRRs that maintain the feasibility of the existing encumbrances over the same period.

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36.11.3.2.3 Step Three: the Incremental Merchant Transmission CRRs.

In the third step, the CAISO will determine the Merchant Transmission CRRs to be allocated to the Project Sponsor of the Merchant Transmission Facility. The CAISO will determine the capability of the system to award incremental Merchant Transmission CRRs using a DC FNM that incorporates the proposed Merchant Transmission Facility. The CAISO will conduct separate SFTs for each time of use period. For each time of use period, the CAISO will perform a multi-period SFT that simultaneously evaluates two sets of grid conditions. The first set of grid conditions includes all existing Encumbrances for the month covered by the most recently conducted CRR Allocation and CRR Auction processes for Monthly CRRs including any temporary test CRRs from step one and any counterflow CRRs from step two. The second set of grid conditions models only Transmission Ownership Rights. Each SFT will consider the entire set of Merchant Transmission CRR nominations for the time of use period and will solve to maximize the MWs of Merchant Transmission CRRs to be allocated to the Project Sponsor of the Merchant Transmission Facility, subject to simultaneous feasibility. The nominated Merchant Transmission CRRs that are feasible in the multi-period SFTs for each time of use period will be allocated to the Project Sponsor of the Merchant Transmission Facility.

36.12 [NOT USED]

36.13 CRR Auction.

The CAISO shall conduct CRR Auctions on an annual and monthly basis subsequent to each annual and monthly CRR Allocation process. Candidate CRR Holders may bid to purchase and may acquire CRR Obligations through the CAISO's annual and monthly CRR Auctions in accordance with the provisions of this Section 36.13. CRR Auction results shall be settled as provided in Section 11.2.4.3.

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36.13.1 Scope of the CRR Auctions.

The CAISO will conduct a CRR Auction corresponding to and subsequent to the completion of each CRR Allocation process, and prior to the start of the period to which the auctioned CRRs will apply. Each CRR Auction will release CRRs having the same seasons, months and time of use specifications as the CRRs released in the corresponding CRR Allocation. Each CRR Auction will utilize the same DC FNM that was utilized in the corresponding CRR Allocation. For each CRR Auction, the CRRs allocated in the corresponding CRR Allocation will be modeled as fixed injections and withdrawals on the DC FNM and will not be adjusted by the SFT in the CRR Auction process. Thus the CRR Auction will release only those CRRs that are feasible given the results of the corresponding CRR Allocation. CRRs released in a CRR Auction will be indistinguishable from CRRs released in the corresponding CRR Allocation for purposes of settlement and secondary trading. The following additional provisions apply. First, participants in the CRR Auctions will have more choices regarding CRR Sources and CRR Sinks than are eligible for nomination in the CRR Allocations, as described in Section 36.13.5. Second, to the extent a Market Participant receives CRRs in both a CRR Allocation and the corresponding CRR Auction, the CRRs obtained in the CRR Auction will not be eligible for nomination in the PNP. Third, in CRR Year One the CRR Auction cannot be used by CRR Holders to offer for sale CRRs they acquired in a prior CRR Allocation, CRR Auction or through the Secondary Registration System. In the annual and monthly CRR Auction processes for years following CRR Year One, CRR Holders may offer for sale any CRRs held by such holders, subject to the limitations on sale and transfer of Long Term CRRs specified in Section 36.7.1.2. Merchant Transmission CRRs that are CRR Options may be offered for sale in the annual and monthly CRR Auctions for years following CRR Year One, subject to the same temporal limitations that apply to Long Term CRRs as specified in Section 36.7.1.2.

36.13.2 Responsibilities of the CAISO Prior to Each CRR Auction.

The CAISO shall publish on the CAISO Website a notice of upcoming CRR Auctions at least seven (7) days prior to the CRR Auction. The CAISO will also provide additional information needed by CRR Auction participants in accordance with the provisions of Section 6.5.1.

CRR Holder Creditworthiness. 36.13.3

All Market Participants are eligible to acquire CRRs by participating in the CRR Auction, provided that the Market Participant has met all the CRR Holder requirements described in Section 36.5, the creditworthiness provisions in Section 12 and Section 12.6 and the relevant Business Practice Manual.

36.13.4 Bids in the CRR Auctions.

Bids to purchase CRRs shall be submitted in accordance with the requirements set out in this Section 36.13.4 and as further specified in the applicable Business Practice Manuals. Once submitted to the CAISO, CRR bids may not be cancelled or rescinded by the Market Participant after the CRR Auction is closed. Market Participants may bid for Point-to-Point CRRs and Multi-Point CRRs. Each bid for a Pointto-Point CRR shall specify:

- (a) The associated month or season and time of use period;
- The associated CRR Source and CRR Sink: (b)
- (c) A monotonically non-increasing piecewise linear bid curve in quantities (denominated in tenths of MW) and prices (\$/MW).

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Each bid for a Multi-Point CRR shall specify:

d) The associated month or season and time of use period;

e) The associated CRR Sources and CRR Sinks;

f) For each CRR Source, a monotonically non-decreasing piecewise linear bid

curve in quantities (denominated in tenths of MW) and prices (\$/MW);

g) For each CRR Sink, a monotonically non-increasing piecewise linear bid curve in

quantities (denominated in tenths of MW) and prices (\$/MW).

Bid prices in all CRR bids may be negative.

36.13.5 Eligible Sources and Sinks for CRR Auction.

Allowable CRR Sources for CRRs acquired in the CRR Auction will be PNodes, Scheduling Points,

Trading Hubs, LAPs, MSS-LAPs and Sub-LAPs. Allowable CRR Sinks for CRRs acquired in the CRR

Auction will be PNodes, Scheduling Points, Trading Hubs, LAPs, MSS-LAPs and Sub-LAPs.

36.13.6 Clearing of the CRR Auction.

The SFT used to clear the CRR Auction will utilize the same DC FNM and optimization algorithm as the

corresponding CRR Allocation, except that nominations to the CRR Auction will have associated price-

quantity bid curves. The CRR Auction SFT will use the bid prices in determining which CRRs to award

when not all nominations are simultaneously feasible, will select the set of simultaneously feasible CRRs

with the highest total auction value as determined by the CRR bids, and will calculate nodal prices at

each PNode of the DC FNM. In the event that there are two or more identical bids for a specific

combination of CRR Source and CRR Sink that affect an overloaded constraint, the CRR Auction optimization cannot distinguish these bids based on either effectiveness or price and therefore the CRR Auction optimization will award each CRR bidder a pro rata share of the CRRs that can be awarded based on the bid MW amounts. Based on the nodal prices calculated by the CRR Auction SFT, the CRR Market Clearing Price per MW for a specific CRR will equal the nodal price at the CRR Sink minus the nodal price at the CRR Source. For a Multi-Point CRR the CRR Market Clearing Price will equal the sum over all relevant CRR Sinks of the nodal price at each CRR Sink times that CRR Sink's share of the total MW of the CRR, minus the sum over all relevant CRR Sources of the nodal price at each CRR Source times that CRR Source's share of the total MW of the CRR Market Participants shall pay the associated CRR Market Clearing Prices for all CRRs bought through the CRR Auction.

36.13.7 Announcement of CRR Auction Results.

Within five (5) Business Days after the close of a CRR Auction, the CAISO shall post the results. The results shall include but are not limited to the MW quantity, the CRR Source and CRR Sink for each CRR awarded, the nodal prices calculated by the CRR Auction SFT, and the parties to whom the CRRs were awarded. The CAISO shall not disclose prices specified in any CRR bid.

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37 Rules of Conduct.

37.1 Objectives, Definitions, and Scope.

37.1.1 Purpose.

Section 37 sets forth the guiding principles for participation in the markets administered by the CAISO. The specified Rules of Conduct are intended to provide fair notice to Market Participants of the conduct expected of them, to provide an environment in which all parties may participate on a fair and equal basis, to redress instances of gaming and other instances of anticompetitive behavior, and thereby to foster confidence of Market Participants, ratepayers and the general public in the proper functioning of the

CAISO markets.

37.1.2 Objectives.

The objectives of this CAISO Tariff are to:

(a) Provide clear Rules of Conduct specifying the behavior expected of Market

Participants; and

(b) Establish in advance the Sanctions and other potential consequences for

violation of the specified Rules of Conduct.

37.1.3 Application of Other Remedies.

action or relief specified in this Section 37.

The activities and remedies authorized under this Section 37 are in addition to any other actions or relief that may be available to the CAISO elsewhere in the CAISO Tariff or under law, regulation or order.

Nothing in this Section 37 limits or should be construed to limit the right of the CAISO to take action or seek relief otherwise available to it, and such action or relief may be pursued in lieu of or in addition to the

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37.1.4 FERC Authority.

In addition to any authority afforded Market Monitoring Unit in this Section 37, FERC shall have the authority to assess the sanctions, and otherwise to enforce the rules as set forth and described in this Section 37. FERC shall have authority to remedy a violation under this Section 37 from the date of the violation. Nothing in this Section 37 shall be deemed to be a limitation or condition on the authority of FERC or other entities under current law or regulation.

37.1.5 Administration.

The Marketing Monitoring Unit will administer the Rules of Conduct specified herein, except for Section 37.7, which shall be administered by FERC, and except as provided in Section 37.2.5 and Section 37.4.4. Nothing in this CAISO Tariff limits or should be construed to limit the ability of components of the CAISO organization other than the Market Monitoring Unit to analyze data and refer matters to the Market Monitoring Unit for enforcement.

37.2 Comply with Operating Orders.

37.2.1 Compliance with Orders Generally.

37.2.1.1 Expected Conduct.

Market Participants must comply with operating orders issued by the CAISO as authorized under the CAISO Tariff. For purposes of enforcement under this Section 37.2, an operating order shall be an order(s) from the CAISO directing a Market Participant to undertake, a single, clearly specified action (e.g., the operation of a specific device, or change in status of a particular Generating Unit) that is feasible and intended to resolve a specific operating condition. A Market Participant's failure to obey an operating order containing multiple instructions to address a specific operating condition will result in a single violation of Section 37.2. If some limitation prevents the Market Participant from fulfilling the action requested by the CAISO, then the Market Participant must promptly and directly communicate the nature of any such limitation to the CAISO. Compliance with CAISO operating orders requires a good faith effort to achieve full performance as soon as is reasonably practicable in accordance with Good Utility Practice.

37.2.1.2 Sanctions.

The Sanction for a violation of this Section shall be the greater of the quantity of Energy non-performance multiplied by the applicable Dispatch Interval Locational Marginal Price or the following: for the first violation in a rolling twelve (12) month period, \$5,000; for the second and subsequent violations in a rolling twelve (12) month period, \$10,000. Sanctions under Section 37.2.1 will not be greater than \$10,000 per violation and will be subject to the limitation stated in Section 37.2.6. If a quantity of Energy cannot be objectively determined, then the financial sanctions specified above will apply. A Market Participant may incur Sanctions for more than one violation per day.

37.2.2 Failure to Curtail Load.

37.2.2.1 Expected Conduct.

A UDC or MSS Operator shall promptly comply with any CAISO operating order to curtail interruptible or firm Load issued pursuant to the CAISO's authority under Section 7.7.11.3.

37.2.2.2 Sanctions.

The Sanction for non-compliance with an operating order to curtail Load will be \$10,000 for each violation.

37.2.3 Operations & Maintenance Practices.

37.2.3.1 Expected Conduct.

Market Participants shall undertake such operating and maintenance practices as necessary to avoid contributing to a major Outage or prolonging response time as indicated by Section 7.7.13.3.

37.2.3.2 **Sanctions.**

The Sanction for a violation of Section 37.2.3 will be \$10,000.

37.2.4 Resource Adequacy Availability.

37.2.4.1 Expected Conduct.

A Market Participant shall operate a Generating Unit listed as a Resource Adequacy Resource on-line and/or available consistent with a DAM or RUC commitment or Real-Time Dispatch Instructions, subject to Section 40, unless the CAISO releases the Generating Unit after the RUC process is completed, or a derate, Outage or other event outside the control of the Market Participant prevents the Generating Unit from being on-line and available. A Market Participant that fails to perform in accordance with the expected conduct described in this Section 37.2.4.1 shall be subject to Sanction.

37.2.4.2 Sanctions.

The Sanctions for a violation of Section 37.2.4 shall be as follows: for the first violation in a rolling twelve (12) month period, \$5,000; for the second and all subsequent violations in a rolling twelve (12) month period, \$10,000. A Market Participant is limited to one Sanction per Generating Unit per calendar day.

37.2.5 Enhancements and Exceptions.

Except as otherwise specifically provided, penalty amounts shall be tripled for any violation of Section 37.2.1 through Section 37.2.4 if a CAISO System Emergency exists at the time an operating order becomes effective or at any time during the Market Participant's non-performance. Notwithstanding the foregoing, violations of Section 37.2.1 through Section 37.2.4 are subject to penalty under this rule only to the extent that the CAISO has issued a separate and distinct non-automated Dispatch Instruction to the Market Participant. Any penalty amount that is tripled under this provision and that would exceed the \$10,000 per day penalty limit shall not be levied against a Market Participant until the CAISO proposes and the Commission approves such an enhancement. A Market Participant that is subject to an enhanced penalty amount under this Section 37.2.5 may appeal that penalty amount to FERC if the Market Participant believes a mitigating circumstance not covered in Section 37.9.2 exists. The duty of the Market Participant to pay the enhanced penalty amount will be tolled until FERC renders its decision on the appeal.

37.2.6 Per-Day Limitation on Amount of Sanctions.

The amount of Sanctions that any Market Participant will incur for committing two or more violations of Section 37.2.1 through Section 37.2.4 on the same day will be no greater than \$10,000 per day.

37.3 Submit Feasible Energy Bids, RUC Capacity Bids, Ancillary Service Bids, and Submissions to Self-Provide an Ancillary Service.

37.3.1 **Bidding Generally.**

37.3.1.1 **Expected Conduct.**

Market Participants must submit Bids for Energy, RUC Capacity and Ancillary Services and Submissions to Self-Provide an Ancillary Service from resources that are reasonably expected to be available and capable of performing at the levels specified in the Bid, and to remain available and capable of so performing based on all information that is known to the Market Participant or should have been known to the Market Participant at the time of submission.

37.3.1.2 Consequence for Non-Performance.

A Market Participant that fails to perform in accordance with the expected conduct described in Section 37.3.1.1 above shall be subject to having the payment rescinded for any portion of an Ancillary Service or RUC Capacity that is unavailable.

37.3.2 **Exceptions.**

Violations of Section 37.3.1 that result in circumstances in which an Uninstructed Deviation Penalty under Section 11.23 may be assessed or for which payments have been eliminated under Section 8.10.8 are not subject to Sanction under this section. The submission of a Bid or of a Submission to Self-Provide Ancillary Services that causes, or that the CAISO expects to cause Congestion shall not, by itself, constitute a violation of Section 37.3.1 unless the Market Participant fails to comply with an obligation under the CAISO Tariff to modify Bids as determined by the CAISO to mitigate such Congestion or such Bids violate another element of this rule.

37.4 Comply with Availability Reporting Requirements.

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37.4.1 Reporting Availability.

37.4.1.1 **Expected Conduct.**

A Market Participant shall notify the CAISO Control Center of any Outage reportable pursuant to Section 9.3.10.2.1 of a Generating Unit subject to Section 4.6 within thirty (30) minutes after the Outage is

discovered.

37.4.1.2 Sanctions.

The Sanctions for a violation of Section 37.4.1 shall be as follows: for the first violation in a rolling twelve (12) month period, a warning letter; for the second violation in a rolling twelve (12) month period, \$1,000; for the third violation in a rolling twelve (12) month period, \$2,000; for the fourth and subsequent violations in a rolling twelve (12) month period, \$5,000. A Market Participant shall not be subject to more than one Sanction per Generating Unit per calendar day for violating Section 37.4.1. A "violation" shall

mean each failure to report an Outage for a specific Generating Unit as required by Section 9.3.10.2.1.

37.4.2 Scheduling and Final Approval of Outages.

37.4.2.1 **Expected Conduct.**

A Market Participant shall not undertake an Outage except as approved by the CAISO Outage Coordination Office in accordance with Section 9.3.2, Section 9.3.9, and Section 9.3.6.6. A Market Participant shall not commence any Outage without obtaining final approval from the CAISO Control

Center in accordance with Sections 9.3.9 and 9.3.10.

37.4.2.2 Sanctions.

The Sanctions for a violation of Section 37.4.2 shall be as follows: for the first violation within a rolling twelve (12) month period, \$5,000; for subsequent violations within a rolling twelve (12) month period, \$10,000. A "violation" shall mean each Outage undertaken for which all required approvals were not obtained.

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37.4.3 **Explanation of Forced Outages.**

37.4.3.1 **Expected Conduct.**

A Market Participant must provide a detailed explanation of a Forced Outage within two (2) Business Days after the discovery of a Forced Outage as specified, in Section 9.3.10.5. An Operator must promptly provide information requested by the CAISO to enable the CAISO to review the explanation submitted by the Operator and to prepare a report on the Forced Outage.

37.4.3.2 Sanctions.

The Sanction for failing to provide a timely explanation of Forced Outage shall be \$500 per day for each day the explanation is late. The Sanction for failing to provide a timely response to information requested shall be as specified in Section 37.6.1.

37.4.4 **Enhancements and Exceptions.**

Except as otherwise specifically provided, penalty amounts shall be tripled for any violation of Section 37.4.1 through Section 37.4.3 that occurs during a CAISO System Emergency. Violations of the above rules that result in circumstances in which an Uninstructed Deviation Penalty under Section 11.23 may be assessed shall not be subject to Sanction under this Section 37.4. A Market Participant that is subject to an enhanced penalty amount under this Section 37.4.4 may appeal that penalty amount to FERC if the Market Participant believes a mitigating circumstance not covered in Section 37.9.2 exists. The duty of the Market Participant to pay the enhanced penalty amount will be tolled until FERC renders its decision on the appeal.

37.5 **Provide Factually Accurate Information.**

37.5.1 **Accurate Information Generally.**

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37.5.1.1 **Expected Conduct.**

All applications, Bids, Submissions, reports, and other communications by a Market Participant or agent of a Market Participant to the CAISO, including maintenance and Outage data, Bid data, transaction information, and Load and resource information, must be submitted by a responsible company official who is knowledgeable of the facts submitted. The Market Participant shall provide accurate and factual information and not submit false or misleading information, or omit material information, in any communication with FERC, FERC-approved market monitors, FERC-approved regional transmission organizations, or FERC-approved independent system operators, or jurisdictional transmission providers. unless the Market Participant exercised due diligence to prevent such occurrences.

37.5.1.2 Sanctions.

The Sanctions for a violation of Section 37.5.1 shall be as follows: for the first violation within a rolling twelve (12) month period, \$2,500; for the second violation within a rolling twelve (12) month period), \$5,000; subsequent violations within a rolling twelve (12) month period, \$10,000.

37.5.2 **Inaccurate Meter Data.**

37.5.2.1 **Expected Conduct.**

Market Participants shall provide complete and accurate Settlement Quality Meter Data for each Trading Hour and shall correct any errors in such data prior to the issuance of Initial Settlement Statement Reissue or Recalculation Settlement Statements, as relevant. Failure to provide complete and accurate Settlement Quality Meter Data, as required by Section 10 and that results in an error that is discovered after issuance of Initial Settlement Statement Reissue or Recalculation Settlement Statements, as relevant, shall be a violation of this rule.

37.5.2.2 Sanctions.

Violations under this Section 37.5.2 shall be subject to Sanction described in Section 37.11.

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37.5.2.3 Disposition of Sanction Proceeds.

For purposes of redistributing collected market adjustments, any amounts collected under this provision

shall be applied first to those parties affected by the conduct. Any excess amounts shall be disposed of

as set forth in Section 37.9.4.

37.6 Provide Information Required by CAISO Tariff.

37.6.1 Required Information Generally.

37.6.1.1 Expected Conduct.

Except as provided below in Section 37.6.4 (Review by FERC), all information that is required to be

submitted to the CAISO under the CAISO Tariff, CAISO Business Practice Manuals, or jurisdictional

contracts must be submitted in a complete, accurate, and timely manner. Market Participants must

comply with requests for information or data by the CAISO authorized under the CAISO Tariff, including

timelines specified for submitting Bids and other information.

37.6.1.2 **Sanctions.**

Except as otherwise provided below, in Section 37.6.2 and Section 37.6.3, a violation of this rule is

subject to a penalty of \$500 for each day that the required information is late.

37.6.2 Investigation Information.

37.6.2.1 Expected Conduct.

Except as provided below in Section 37.6.4 (Review by FERC), Market Participants must submit timely

information in response to a written request by the CAISO for information reasonably necessary to

conduct an investigation authorized by the CAISO Tariff.

37.6.2.2 Sanctions.

The Sanction for a violation of Section 37.6.2 shall be as follows: for the first violation in a rolling twelve

(12) month period, \$1000/day; for the second violation in a rolling twelve (12) month period, \$2000/day;

for the third and subsequent violations in a rolling twelve (12) month period, \$5000/day. For purposes of

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this subsection, a violation shall be each failure to provide a full response to a written request and the Sanction shall be determined from the date that the response was due until a full response to the request is received.

37.6.3 **Audit Materials.**

37.6.3.1 **Expected Conduct.**

Except as provided below in Section 37.6.4 (Review by FERC), Market Participants shall comply with the CAISO's audit and/or test procedures, and further shall perform and timely submit an annual self-audit as required under the CAISO Tariff.

37.6.3.2 Sanctions.

For failure to submit an annual Scheduling Coordinator Self Audit report, the Sanction shall be \$1000/day until such report is received by the CAISO. For all other violations of this rule the Sanctions shall be as follows: for the first violation in a rolling twelve (12) month period, \$1000/day; for the second violation in a rolling twelve (12) month period, \$2000/day; for the third and subsequent violations in a rolling twelve (12) month period, \$5000/day. For purposes of this subsection, a "violation" shall be each failure to provide all information required under the audit or test, from the date that the information was due until all required information is received by the CAISO.

37.6.4 Review by FERC.

A Market Participant who objects to an information, audit or test obligation that is enforceable under Section 37.6.1, Section 37.6.2 or Section 37.6.3 above shall have the right immediately (and in all events, no later than the due date for the information) to seek review of the obligation with FERC. In the event that such review is sought, the time for submitting the response or other information to the CAISO shall be tolled until FERC resolves the issue.

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37.7 Prohibition of Electric Energy Market Manipulation.

It shall be a violation of this CAISO Tariff for an entity, directly or indirectly, in connection with the purchase or sale of electric energy or the purchase or sale of transmission services subject to the jurisdiction of the FERC, (i) to use or employ any device, scheme, or artifice to defraud, (ii) to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading, or (iii) to engage in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity. Violations or potential violations of this rule shall be referred to FERC for appropriate sanction.

Actions or transactions by a Market Participant that are explicitly contemplated in the CAISO Tariff or are undertaken at the direction of the CAISO are not in violation of this Rule of Conduct.

37.8 Process for Investigation and Enforcement.

37.8.1 Purpose; Scope.

The provisions of this Section 37.8 set forth the procedures by which the Market Monitoring Unit will independently investigate potential violations of the Rules of Conduct and administer enforcement activities. Except as hereinafter provided, and except as provided in Section 37.2.5 and Section 37.4.4, the provisions of this section apply to the Rules of Conduct set forth in Sections 37.2 through 37.7.

37.8.2 Referrals to FERC.

Section 37.7 shall be enforced by FERC, in accordance with FERC's rules and procedures. The Market Monitoring Unit shall refer to FERC and its staff all matters in which it has formed a reasonable belief that a violation of Section 37.7 may have occurred. Although Sections 37.2 through 37.6 will generally be enforced by the Market Monitoring Unit, the Market Monitoring Unit shall refer to FERC any matter for which the particular circumstances preclude the objective determination of a Rules of Conduct violation,

and shall refer to FERC any Sanction that it believes should be modified in accordance with Sections 37.2.5, 37.4.4, or 37.9.1. The time limitation contained in Section 37.10.1 to assess a Sanction under this Section 37 shall be determined as of the date that a Sanction is initially assessed by the CAISO, excluding the time required for FERC to investigate a potential Rules of Conduct violation and/or determine a Sanction in accordance with this section, Sections 37.2.5, 37.4.4, or 37.9.1.

37.8.3 Investigation.

The Market Monitoring Unit shall conduct a reasonable investigation seeking available facts, data, and other information relevant to the potential Rules of Conduct violation.

37.8.4 Notice.

The Market Monitoring Unit shall provide notice of the investigation in sufficient detail to allow for a meaningful response to the Scheduling Coordinator and, as limited below, to all Market Participants the Scheduling Coordinator represents that are the subject(s) of the investigation. The Market Monitoring Unit shall contact the Market Participant(s) that may be involved, so long as the CAISO has sufficient objective information to identify and verify the role of the Market Participant(s) in the potential Rules of Conduct violation. Such Market Participant(s) will likely have an existing contractual relationship with the CAISO (e.g., UDC, MSS, CAISO Metered Entity, Participating Transmission Owner, Participating Generator, or Participating Load).

37.8.5 Opportunity to Present Evidence.

The Market Monitoring Unit shall provide an opportunity to the Market Participant(s) that are the subject(s) of the investigation to present any issues of fact or other information relevant to the potential Rules of Conduct violation being investigated. The Market Monitoring Unit shall consider all such information or data presented.

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37.8.6 Results of Investigation.

The Market Monitoring Unit shall notify the Market Participant(s) that are the subject(s) of the investigation

of the results of the investigation. The Market Participant(s) shall have thirty (30) days to respond to the

findings of the Market Monitoring Unit before the Market Monitoring Unit makes a determination of

whether a Sanction is required by this CAISO Tariff.

37.8.7 Statement of Findings and Conclusions.

Where the investigation results in a Sanction, the Market Monitoring Unit shall state its findings and

conclusions in writing, and will make such writing available to the Scheduling Coordinator and, as

provided in Section 37.8.4, to the Market Participant(s) that are the subject(s) of the investigation.

37.8.8 Officer Representative.

Where an investigation results in a Sanction by the Market Monitoring Unit, the Market Monitoring Unit

shall direct its notice of such result to a responsible representative of the Scheduling Coordinator and, as

provided in Section 37.8.4, to the Market Participant(s) that are the subject(s) of the investigation at the

officer level.

37.8.9 Record of Investigation.

Where an investigation results in a Sanction, the Market Monitoring Unit will maintain a record of the

investigation until its decision has been finally reviewed, if review is sought, or until the period for seeking

review has expired.

37.8.10 Review of Determination.

A Market Participant that receives a Sanction may obtain immediate review of the Market Monitoring

Unit's determination by directly appealing to FERC, in accordance with FERC's rules and procedures. In

such case, the applicable Scheduling Coordinator shall also dispute the Initial Settlement Statement T +

38 BD containing the financial penalty, in accordance with Section 11. The Initial Settlement Statement

T + 38 BD dispute and appeal to FERC must be made in accordance with the timeline for raising disputes specified in Section 11.29.8.2. The penalty will be tolled until FERC renders its decision on the appeal. The disposition by FERC of such appeal shall be final, and no separate dispute of such Sanction may be initiated under Section 13, except as provided in Section 37.9.3.4. For the purpose of applying the time limitations set forth in Section 37.10.1, a sanction will be considered assessed when it is included on an Initial Settlement Statement T + 38 BD, whether or not the CAISO accepts a Scheduling Coordinator's dispute of such Initial Settlement Statement T + 38 BD pending resolution of an appeal to FERC in accordance with this section or Section 37.9.3.3.

37.9 Administration of Sanctions.

37.9.1 Assessment; Waivers and Adjustments.

Penalty amounts for violation of these Rules of Conduct shall be calculated as specified in Section 37.2 through Section 37.7. A Sanction specified in this Section 37 may be modified by FERC when it determines that such adjustment is just and reasonable. The CAISO may make a recommendation to FERC to modify a Sanction. An adjustment generally shall be deemed appropriate if the prescribed Sanction appears to be insufficient to deter the prohibited behavior, or if the circumstances suggest that the violation was inadvertent, unintentional, or some other mitigating circumstances exist.

37.9.2 Excuse.

The following circumstances shall excuse a violation of a Rule of Conduct under the terms of this CAISO Tariff:

37.9.2.1 Uncontrollable Force.

No failure by a Market Participant to satisfy the Rules of Conduct shall be subject to penalty to the extent and for the period that the Market Participant's inability to satisfy the Rules of Conduct is caused by an event or condition of Uncontrollable Force affecting the Market Participant; provided that the Market Participant gives notice to the CAISO of the event or condition of Uncontrollable Force as promptly as possible after it knows of the event or condition and makes all reasonable efforts to cure, mitigate, or remedy the effects of the event or condition.

37.9.2.2 Safety, Licensing, or Other Requirements.

Failure by a Market Participant to perform its obligations shall not be subject to penalty if the Market Participant is able to demonstrate that it was acting in accordance with Section 4.2.1.

37.9.2.3 Emergencies.

Failure by a Market Participant to perform its obligations may not be subject to penalty if the Market

Participant is able to demonstrate that it was acting in good faith and consistent with Good Utility Practice
to preserve System Reliability in a System Emergency, unless contrary to a CAISO operating order.

37.9.2.4 Conflicting Directives.

To the extent that any action or omission by a Market Participant is specifically required by a FERC order or CAISO operating order, the Market Participant may not be subject to penalty for that act or omission.

37.9.3 Settlement.

37.9.3.1 Settlement Statements.

The CAISO will administer any penalties issued under this Section 37 through Initial Settlement
Statements T + 38 BD, and Initial Settlement Statement Reissues or Recalculation Settlement
Statements, as relevant, issued to the responsible Scheduling Coordinator by the CAISO. Before
invoicing a financial penalty through the Settlement process, the CAISO will provide a description of the
penalty to the responsible Scheduling Coordinator and all Market Participants the Scheduling Coordinator
represents that are liable for the penalty, when the CAISO has sufficient objective information to identify
and verify responsibility of such Market Participants. The CAISO shall specify whether such penalty is
modified pursuant to Section 37.2.5, Section 37.4.4 or Section 37.9.1. The description shall include the
identity of the Market Participant that committed the violation and the amount of the penalty. Where
FERC has determined the Sanction, the CAISO will provide such of the above information as is provided
to it by FERC. The CAISO also may publish this information under the CAISO Website after Initial
Settlement Statement Reissues or Recalculation Settlement Statements, as relevant, are issued.

37.9.3.2 Payment.

Except as provided in Section 37.2.5, Section 37.4.4, Section 37.8.10 or Section 37.9.3.3 below, the Scheduling Coordinator shall be obligated to pay all penalty amounts reflected on Settlement Statements to the CAISO pursuant to the CAISO's Settlement process, as set forth in Section 11.

37.9.3.3 Other Responsible Party.

Where a party or parties other than the Scheduling Coordinator is responsible for the conduct giving rise to a penalty reflected on a Settlement Statement, and where the Scheduling Coordinator bears no responsibility for the conduct, such other party or parties ultimately shall be liable for the penalty. Under such circumstances, the Scheduling Coordinator shall use reasonable efforts to obtain payment of the penalty from the responsible party(ies) and to remit such payment to the CAISO in the ordinary course of the Settlement process. In the event that the responsible party(ies) wish to dispute the penalty, or the Scheduling Coordinator otherwise is unable to obtain payment from the responsible parties, the Scheduling Coordinator shall notify the CAISO and dispute the Initial Settlement Statement T+ 38 BD. The CAISO promptly shall notify FERC. If the CAISO finds that a Market Participant separate from the Scheduling Coordinator that is unable to obtain payment from the responsible party(ies) is solely responsible for a violation, the Scheduling Coordinator that is unable to obtain payment may net its payment of its Invoice amount by the amount of the penalty in question. The CAISO may refuse to offer further service to any responsible party that fails to pay a penalty, unless excused under the terms of the CAISO Tariff, by providing notice of such refusal to the Scheduling Coordinator. Following such notice, the Scheduling Coordinator shall be liable for any subsequent penalties assessed on account of such responsible party.

37.9.3.4 Dispute of FERC Sanctions.

The right that a Market Participant may otherwise have under the CAISO Tariff to dispute a penalty that has been determined by FERC shall be limited to a claim that the CAISO failed properly to implement the penalty or other Sanction ordered by FERC, except as provided by Section 37.2.5 and Section 37.4.4.

37.9.4 Disposition of Proceeds.

The CAISO shall collect penalties assessed pursuant to this Section 37.9 and deposit such amounts in an interest bearing trust account. After the end of each calendar year, the CAISO shall distribute the penalty amounts together with interest earned through payments to Scheduling Coordinators as provided herein. For the purpose of this Section 37.9.4, "eligible Market Participants" shall be those Market Participants that were not assessed a financial penalty pursuant to this Section 37 during the calendar year.

Each Scheduling Coordinator that paid GMC during the calendar year will identify, in a manner to be specified by the CAISO, the amount of GMC paid by each Market Participant for whom that Scheduling Coordinator provided service during that calendar year. The total amount assigned to all Market Participants served by that Scheduling Coordinator in such calendar year (including the Scheduling Coordinator itself for services provided on its own behalf), shall equal the total GMC paid by that Scheduling Coordinator.

The CAISO will calculate the payment due each Scheduling Coordinator based on the lesser of the GMC actually paid by all eligible Market Participants represented by that Scheduling Coordinator, or the product of a) the amount in the trust account, including interest, and b) the ratio of the GMC paid by each Scheduling Coordinator for eligible Market Participants, to the total of such amounts paid by all Scheduling Coordinators. Each Scheduling Coordinator is responsible for distributing payments to the eligible Market Participants it represented in proportion to GMC collected from each eligible Market Participant.

Prior to allocating the penalty proceeds, the CAISO will obtain FERC's approval of its determination of eligible Market Participants and their respective shares of the trust account proceeds. If the total amount in the trust account to be so allocated exceeds the total GMC obligation of all eligible Market Participants, then such excess shall be treated in accordance with Section 11.8.5.3(b).

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37.10 Miscellaneous.

37.10.1 **Time Limitation.**

An investigation of events potentially subject to Sanction under this Section 37 must be commenced within ninety (90) days of discovery of the events. Sanctions may be assessed under this Section 37 up to one year after discovery of the events constituting the violation, but no later than three years after the date of the violation. Nothing in this section shall limit the rights or liabilities of any party under any other provision of applicable laws, regulations or tariff provisions.

37.10.2 No Limitation on Other Rights.

Nothing contained in this Section 37 shall limit the ability of the CAISO to collect information from Market Participants or to establish new provisions pursuant to Section 15.

37.11 **Method for Calculating Penalties.**

37.11.1 Method for Calculating Inaccurate Meter Data Penalty.

There is no Sanction for the submission of inaccurate Meter Data used for an Initial Settlement Statement T+ 38 BD. However, an error in submitted Meter Data that is discovered after issuance of a Initial Settlement Statement Reissue or Recalculation Settlement Statement, as applicable, constitutes a Rule of Conduct violation. The level of the Sanction depends on whether the Scheduling Coordinator or the CAISO discovered the error. An increased penalty will apply for errors that are discovered by the CAISO. Table A1 below shows how the level of the Sanction depends on the following factors: whether or not the Scheduling Coordinator finds the error; whether or not the Scheduling Coordinator owes the market, and whether or not the CAISO performs a Settlement Statement Re-run of the market. If the CAISO performs a Settlement Statement Re-run, then Settlement to all Scheduling Coordinators is recalculated, and the impact of such re-runs on charges assessed will be considered. A penalty charge equal to thirty percent (30%) of the estimated value of the Energy error will apply if the Scheduling Coordinator discovers the

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error or seventy-five percent (75%) of the estimated value of the Energy error if the CAISO discovers the error. Penalty assessment and disposition of penalty proceeds will be administered as described in Section 37.9.1 and Section 37.9.4 respectively. A Sanction will not be imposed unless such Sanction is more than \$1,000 for at least one Trading Day during the period for which there was incomplete or inaccurate Meter Data.

Table A1 – Calculation of Inaccurate Meter Data Penalty When There Is A Settlement Statement Rerun

Case	Does SC Owe Market?	
Case 1: SC Identifies Inaccurate Meter Data	Yes	Penalty = (MWh x applicable price) x 0.30
Case 1: SC Identifies Inaccurate Meter Data	No	Penalty = (MWh x applicable price) x 0.30
Case 2: CAISO Identifies Inaccurate Meter Data	Yes	Penalty = (MWh x applicable price) x 0.75
Case 2: CAISO Identifies Inaccurate Meter Data	No	Penalty = (MWh x applicable price) x 0.75

Note to Table A1:

The applicable price will be the greater of the relevant hourly LMP or \$10/MWh. The LMP used will be the values posted on OASIS for each Trading Hour of the applicable Trading Day period.

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2. Method for Calculating Inaccurate Meter Data Penalty When there is not a Settlement Statement Re-run.

If the CAISO does not perform a Settlement Statement Re-run, for cases of inaccurate Meter Data, Table A2 will be used to determine and allocate penalty and any market adjustment amount. The market adjustment approximates the financial impact on the market; however, it does not completely reflect all the Settlement consequences of inaccurately submitted Meter Data. The approximated value of the inaccurate Meter Data in question will be calculated and returned to the market based on the average of the pro rata share of Unaccounted for Energy (UFE) charged in the utility Service Area during the period of the inaccurate Meter Data event. The thirty percent (30%) or seventy-five percent (75%) penalty will be distributed as discussed in Section 37.9.4. For cases where the CAISO does not perform a Settlement Statement Re-run and the Scheduling Coordinator does not owe the market, then no market adjustment will be performed.

TABLE A2- Calculation Of Inaccurate Meter Data Penalty When There Is a Settlement Statement Rerun

Case	Does SC Owe Market?	CAISO does not perform a Settlement Statement Re- run
Case 1: SC Identifies Inaccurate Meter Data	Yes	Market Adjustment = (MWh x applicable price) Penalty = (MWh x applicable price)) x 0.30
Case 1: SC Identifies Inaccurate Meter Data	No	No market adjustment will be made Penalty = (MWh x Hourly LMP) x 0.30
Case 2: CAISO Identifies Inaccurate Meter Data	Yes	Market Adjustment = (MWh x applicable price) Penalty = (MWh x applicable price) x 0.75
Case 2: CAISO Identifies Inaccurate Meter Data	No	No market adjustment will be made Penalty = (MWh x Hourly LMP) x 0.75

Notes to Table A2:

The applicable price will be the greater of the relevant hourly LMP or \$10/MWh. The LMP used will be the value posted on OASIS for each Trading Hour of the applicable Trading Day.

A Sanction will be imposed only if the Sanction is more than \$1,000 for at least one Trading Day during the period for which there was incomplete or inaccurate Meter Data.

If the error is to the detriment of the responsible Scheduling Coordinator (e.g., under-reported Generation or over-reported Demand), and the CAISO does not perform a Settlement Statement Re-run, then no market adjustment will be made. If the CAISO performs a Settlement Statement Re-run after the error is corrected, then the Scheduling Coordinator will be given credit for the additional Energy through the normal Settlement process. If the Scheduling Coordinator is paid for an error due to a Settlement Statement Re-run, then a Sanction will be assessed to assure that Settlement Statement Re-runs do not diminish the incentive to correct such errors. This Sanction would be thirty percent (30%) of the Energy value of the error if the Scheduling Coordinator discovers the error or seventy-five percent (75%) estimated value of the error if the CAISO discovers the error.

If the error is to the detriment of the market, then a charge equal to thirty percent (30%) or seventy-five (75%) of the estimated value of the error, as appropriate, will be added to the charge for the Energy. If there is no Settlement Statement Re-run, then the cost of Energy supplied by the CAISO (and inappropriately charged to the market as Unaccounted for Energy) must be recovered as well, and the charge will be equal to 130% or 175% of the estimated value of the error, as appropriate.

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38 **Market Monitoring.**

38.1 Objectives and Scope.

This Section 38 sets forth the framework under which the CAISO Department of Market Monitoring and CAISO Market Surveillance Committee will monitor the CAISO Markets to identify abuses of market power, to ensure to the extent possible the efficient working of the CAISO Markets immediately upon commencement of their operation, and to provide for their protection from abuses of market power in both the short term and the long term, and from other abuses that have the potential to undermine their effective functioning or overall efficiency in accordance with Section 38.1.1. Such monitoring activities will be carried out by, among other CAISO departments, the CAISO Department of Market Monitoring and the CAISO Market Surveillance Committee to be established and to operate under the terms of this CAISO Tariff, as set forth below. This Section provides a general framework for the operation of the Department of Market Monitoring and the Market Surveillance Committee and are not intended to limit the activities or remedies available to these entities or to the CAISO as a whole elsewhere in the CAISO Tariff or otherwise under law.

38.1.1 Market Surveillance: Changes to Operating Rules and Procedures.

The CAISO shall keep the operation of the markets that it administers under review to determine whether changes in its operating rules, Business Practice Manuals, or CAISO Tariff would improve the efficiency of those markets or prevent the exercise of market power by any Market Participant; and it shall institute necessary changes in accordance with this Section 38.

38.1.2 Reporting Requirements.

This Section 38 sets forth the information dissemination, publication and reporting activities and other means of providing information that the CAISO generally undertakes to meet its reporting requirements to regulatory agencies, Market Participants and others. The goal of the reporting provisions is to adequately inform regulatory agencies, law enforcement agencies, policymakers, Market Participants and others of the state of the CAISO Markets, especially their competitiveness and efficiency. This function is designed to facilitate efficient corrective actions to be taken by the appropriate body or bodies when required.

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38.2 Practices Subject to Scrutiny – General.

The Department of Market Monitoring shall monitor the activities of Market Participants that affect the operation of the CAISO Markets and that provide indications of the phenomena set forth below in this Section 38.2 and will monitor for violations of the market behavior rules specified in Section 37 and any FERC orders establishing market behavior rules for Market Participants. Any corrective actions taken in response to potential violations of market behavior rules shall be made consistent with Section 37 and the applicable FERC orders. Where appropriate, it will take such further action as it considers necessary under Section 38.4.

38.2.1 Abuse of Reliability Must-Run Unit Status.

Where Generating Units are determined by the CAISO to be Reliability Must-Run Units, circumstances that indicate that such Generating Units are being operated in a manner that will adversely affect the competitive nature and efficient workings of the CAISO Markets.

38.2.2 CAISO and Other Market Design Flaws.

The Department of Market Monitoring shall monitor design flaws and inefficiencies in the CAISO Tariff,
Business Practices Manuals, and Operating Procedures, including the potential for problems between the
CAISO and other independent power markets or exchanges insofar as they affect the CAISO Markets.

38.2.3 Market Structure Flaws.

With respect to flaws in the overall structure of the California Energy markets that may reveal undue concentrations of market power in Generation or other structural flaws, the Department of Market Monitoring shall provide such information or evidence of such flaws and such analysis as it may conduct to the CAISO CEO and/or to the CAISO Governing Board, subject to due protections of confidential or commercially sensitive information. After due internal consultation, if instructed by any of such CAISO institutions or persons, the Department of Market Monitoring shall also provide such information or evidence to the Market Surveillance Committee, the appropriate regulatory and antitrust enforcement

agency or agencies, subject to due protections of confidential or commercially sensitive information. The Department of Market Monitoring shall, at the direction of the CAISO CEO and/or the CAISO Governing Board, or their designee, provide such other evidence, views, analyses or testimony as may be appropriate or required and as it is reasonably capable of providing to assist the investigations of such agencies.

38.3 Scrutiny of Market Participant Changes Potentially Affecting Market Structure.

The Department of Market Monitoring may undertake the following measures to monitor the special circumstances that may affect the operation of the CAISO Markets due to corporate reorganizations including bankruptcies or changes in affiliate relationships and may recommend corrective actions as provided in Section 38.4.

38.3.1 Exercises of Horizontal Market Power.

The Department of Market Monitoring may analyze the impact of changes in market structure on the ability of Market Participants to exercise short-term horizontal market power.

38.4 Response Action by CAISO.

38.4.1 Corrective Actions.

Where the monitoring activities or any consequent investigations carried out by the Department of Market Monitoring pursuant to Section 38.2 and Appendix P.1 reveal a significant possibility of the presence of or potential for exercises of market power that would adversely affect the operation of the CAISO Markets, or other markets interconnected or interdependent on the CAISO Markets, the Department of Market Monitoring shall take the appropriate measures under this section and under Appendix P to institute the corrective action most effective and appropriate for the situation or, in the case of markets interconnected to or interdependent on the CAISO Markets, the Department of Market Monitoring may recommend corrective actions to the appropriate regulatory agencies.

38.4.2 **Further Actions.**

Where the monitoring activities of or any consequent investigations carried out by the Department of Market Monitoring pursuant to Sections 38.2 and 38.3 reveal that activities or behavior of Market Participants in the CAISO Markets have the effect of, or potential for, undermining the efficiency, workability or reliability of the CAISO Markets to give or to serve such Market Participants an unfair competitive advantage over other Market Participants, the Department of Market Monitoring shall fully investigate and analyze the effect of such activities or behavior and make recommendations to the CAISO CEO and the CAISO Governing Board for further action by the CAISO or, where necessary, by other entities. The Department of Market Monitoring may, where appropriate, make specific recommendations to the CAISO CEO and to the CAISO Governing Board for amendment to rules and protocols under its control, or for changes to the structure of the CAISO Markets, and the Department of Market Monitoring may recommend actions, including fines or suspensions, against specific entities in order to deter such activities or behavior.

38.4.3 **Adverse Effects of Transition Mechanisms.**

Should the monitoring and analysis conducted reveal significant adverse effects of transition mechanisms on competition in or the efficient operation of the CAISO Markets, the Department of Market Monitoring shall examine and fully assess the efficacy of all possible measures that may be taken by the CAISO, in order to prevent or to mitigate such adverse effects. The Department of Market Monitoring shall make such recommendations to the CAISO CEO and to the CAISO Governing Board as it considers appropriate for action by the CAISO and/or for referral to regulatory or law enforcement agencies. Such proposed measures may include, but shall not be limited to the following:

> the use of direct Bid caps as a mechanism to prevent or mitigate artificially high (a) Market Clearing Prices caused by abuses of market power;

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- (b) the use of contracts for differences for eliminating the incentive for Generators to bid CAISO prices to artificially high levels enabled by the presence of market power;
- (c) calling upon Reliability Must-Run Units to operate; and to modify Reliability Must-Run Contracts:
- (d) Bid floors to prevent or mitigate the possible exercise of below-cost bidding or predatory pricing.

In the event that the CAISO Governing Board adopts, and where necessary obtains regulatory approval for, any measure proposed pursuant to this Section 38.4.3, the Department of Market Monitoring shall monitor the implementation and effect of such measure on the state of the CAISO Markets and shall periodically report on them to the CAISO CEO and the CAISO Governing Board.

39 Market Power Mitigation Procedures.

These CAISO market power mitigation measures ("Mitigation Measures") are intended to provide the means for the CAISO to mitigate the market effects of any conduct that would substantially distort competitive outcomes in the CAISO Markets while avoiding unnecessary interference with competitive price signals. These Mitigation Measures are intended to minimize interference with an open and competitive market, and thus to permit, to the maximum extent practicable, price levels to be determined by competitive forces under the prevailing market conditions. To that end, the Mitigation Measures authorize the mitigation only of specific conduct identified through explicit procedures specified below. In addition, the CAISO shall monitor the markets it administers for conduct that it determines constitutes an abuse of market power but is not addressed by the market power mitigation procedures specified below. If the CAISO identifies any such conduct, it shall make a filing under Section 205 of the Federal Power Act, 16 U.S.C. § 824d, with FERC requesting authorization to apply appropriate mitigation measures. Any such filing shall identify the particular conduct the CAISO believes warrants mitigation, shall propose a specific mitigation measure for the conduct, and shall set forth the CAISO's justification for imposing that mitigation measure.

39.2 Conditions for the Imposition of Mitigation Measures.

39.2.1 In general, the CAISO shall consider a Market Participant's conduct to be inconsistent with competitive conduct if the conduct would not be in the economic interest of the Market Participant in the absence of market power. The categories of conduct that are inconsistent with competitive conduct include, but may not be limited to, the four categories of conduct specified in Section 39.3 below.

39.3 Categories of Conduct that May Warrant Mitigation.

- 39.3.1 Mitigation Measures may be applied to bidding, scheduling or operation of an Electric Facility or as specified in Section 39.3.1. The following categories of conduct, whether by a single firm or by multiple firms acting in concert, may cause a material effect on prices or generally the outcome of the CAISO Markets if exercised from a position of market power. Accordingly, the CAISO shall monitor the CAISO Markets for the following categories of conduct, and shall impose appropriate Mitigation Measures if such conduct is detected and the other applicable conditions for the imposition of Mitigation Measures are met:
 - (1) Physical withholding of an Electric Facility, in whole or in part, that is, not offering to sell or schedule the output of or services provided by an Electric Facility capable of serving a CAISO Market. Such withholding may include, but not be limited to: (i) falsely declaring that an Electric Facility has been forced out of service or otherwise become totally or partially unavailable, (ii) refusing to offer Bids for an Electric Facility when it would be in the economic interest, absent market power, of the withholding entity to do so, (iii) declining Bids called upon by the CAISO (unless the CAISO is informed in accordance with established procedures that the relevant resource for which the Bid is submitted has undergone a forced outage or derate), or (iv) operating a Generating Unit in Real-Time to produce an output level that is less than the Dispatch Instruction.
 - (2) Economic withholding of an Electric Facility, that is, submitting Bids for an Electric Facility that are unjustifiably high (relative to known operational characteristics and/or the known operating cost of the resource) so that: (i) the Electric Facility is not or will not be dispatched or scheduled, or (ii) the Bids will set LMPs.

- (3) Uneconomic production from an Electric Facility that is, increasing the output of an Electric Facility to levels that would otherwise be uneconomic in order to cause, and obtain benefits from, a transmission constraint.
- (4) Bidding practices that distort prices or uplift charges away from those expected in a competitive market, such as (i) submitting Demand Bids at prices that are unjustifiably low relative to the expected marginal cost of meeting total expected demand resulting in DAM prices that are significantly below competitive levels and DAM clearing demand that is significantly below total expected demand or (ii) registering Start-Up Cost and Minimum Load Cost data or submitting Bid Costs on behalf of an Electric Facility that are unjustifiably high (relative to known operational characteristics and/or the known operating cost of the resource) or misrepresenting the physical operating capabilities of an Electric Facility in uplift payments or prices significantly in excess of actual costs.
- **39.3.2** Mitigation Measures may also be imposed to mitigate the market effects of a rule, standard, procedure, design feature, or known software imperfection of a CAISO Market that allows a Market Participant to manipulate market prices or otherwise impair the efficient operation of that market, pending the revision of such rule, standard, procedure design feature, or software defect to preclude such manipulation of prices or impairment of efficiency.
- **39.3.3** Taking advantage of opportunities to sell at a higher price or buy at a lower price in a market other than a CAISO Market shall not be deemed a form of withholding or otherwise inconsistent with competitive conduct.

39.3.4 The CAISO shall monitor CAISO Markets for other categories of conduct, whether by a single firm or by multiple firms acting in concert, that have material effects on prices in a CAISO Market or other payments. The CAISO shall seek to amend the foregoing list as may be appropriate to include any such conduct that would substantially distort or impair the competitiveness of any of the CAISO Markets.

39.4 Sanctions for Physical Withholding.

The CAISO may report a Market Participant the CAISO determines to have engaged in physical withholding, including providing the CAISO false information regarding derating or outage of an Electric Facility, to the Federal Energy Regulatory Commission in accordance with Section 9.3.10.5. In addition, a Market Participant that fails to operate a Generating Unit in conformance with CAISO Dispatch Instructions shall be subject to the penalties set forth in Section 11.23.

39.5 FERC-Ordered Measures.

In addition to any mitigation measures specified above, the CAISO shall administer, and apply when appropriate in accordance with their terms, such other mitigation measures as it may be directed to implement by order of the FERC.

39.6 Rules Limiting Certain Energy, Ancillary Services, And Residual Unit Commitment Bids.

39.6.1 Maximum Bid Prices.

Notwithstanding any other provision of this CAISO Tariff, maximum Bid price provisions of Section 39 shall apply to limit, Energy Bids, RUC Availability Bids, and Ancillary Service Bids as specified below.

39.6.1.1 Maximum Price for Energy Bids

For the twelve (12) months following the effective date of this Section, the maximum Energy Bid prices shall be \$500/MWh. After the twelfth month following the effective date of this Section, the maximum Energy Bid price shall be \$750/MWh. After the twenty-fourth month following the effective date of this Section, the maximum Energy Bid price shall be \$1,000/MWh.

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39.6.1.2 **Maximum RUC Availability Bid Prices**

The maximum RUC Availability Bid price shall be \$250/MW/h.

39.6.1.3 **Maximum Ancillary Services Bid Prices**

The maximum level for Ancillary Services Bid prices shall be \$250/MWh.

39.6.1.4 Minimum Bid Price for Energy Bids.

Energy Bids into the CAISO Markets less than -\$30/MWh are not eligible to set any LMP. If the CAISO dispatches a resource with an Energy Bid less than -\$30/MWh, the Scheduling Coordinator on behalf of the resource will be eligible to be paid the Bid price upon the submission of detailed information justifying the cost components of the Bid to the CAISO and FERC no later than seven (7) days after the end of the month in which the Bid was submitted. The CAISO will treat such information as confidential and will apply the procedure in Section 20.4 with regard to requests for disclosure of such information. The CAISO shall pay Scheduling Coordinators for amounts in excess of -\$30/MWh minimum Bid price upon FERC acceptance of the information justifying the cost components.

39.6.1.5 Minimum Bid Price for Ancillary and RUC Bids.

Ancillary Service Bids and RUC Availability Bids submitted into CAISO markets must have Bid prices not less than \$0/MW/h.

39.6.1.6 Maximum Start-Up Cost and Minimum Load Cost Registered Cost Values.

The maximum Start-Up Cost and Minimum Load Cost values registered in the Master File by Scheduling Coordinators for resources located within a Local Capacity Area that elect the Registered Cost option in accordance with Section 30.4 will be limited to 200% of the Projected Proxy Cost. The maximum Start-Up Cost and Minimum Load Cost values registered in the Master File by Scheduling Coordinators for resources that are not located in Local Capacity Areas that elect the Registered Cost option in accordance with Section 30.4 will be limited to 400% of the Projected Proxy Cost.

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39.7 Local Market Power Mitigation for Energy Bids.

Local market power mitigation is based on a periodic assessment and designation of transmission constraints as competitive or non-competitive. Such periodic assessment will be performed at a minimum on an annual basis and potentially more frequently if needed due to changes in system conditions, network topology, or market performance. Any changes in constraint designations will be publicly noticed prior to making the change. Upon determination that an ad hoc assessment is warranted, the CAISO will notice market participants that such an assessment will be performed. The determination whether a unit is being dispatched to relieve congestion on a competitive or non-competitive transmission constraint is based on two preliminary market runs that are performed prior to the actual pricing run of the market and are described in Sections 31 and 33 for the DAM and RTM, respectively.

39.7.1 Calculation of Default Energy Bids

Default Energy Bids shall be calculated by the CAISO, for the on-peak hours and off-peak hours for both the DAM and RTMs, pursuant to one of the methodologies described in this Section. The Scheduling Coordinator for each Generating Unit owner or Participating Load must rank order the following options of calculating the Default Energy Bid starting with its preferred method. The Scheduling Coordinator must provide the data necessary for determining the Variable Costs unless the Negotiated Rate Option precedes the Variable Cost option in the rank order, in which case the Scheduling Coordinator must have a negotiated rate established with the Independent Entity charged with calculating the Default Energy Bid. If no rank order is specified for a Generating Unit or Participating Load, then the default rank order of (1) Variable Cost Option, (2) Negotiated Rate Option, (3) LMP Option will be applied.

39.7.1.1 Variable Cost Option.

The Variable Cost option will calculate the Default Energy Bid as Variable Costs plus ten percent (10%). Variable Cost will be comprised of two components: Fuel Cost and Variable Operation and Maintenance Cost. The Fuel Cost portion will be calculated for each Bid segment using the Heat Rate supplied by the resource owner on file in the Master File and the applicable regional natural gas price indices calculated as follows and as specified in the Business Practice Manual. The CAISO will use different gas price indices for the Day-Ahead Market and the Real-Time Market and each gas price index will be calculated using at least two prices from two or more of the following publications: Natural Gas Intelligence, Btu Daily Gas Wire, Platt's Gas Daily and the Intercontinental Exchange. For the Day-Ahead Market, the CAISO will update the gas price index between 00:00 and 03:00 Pacific Time in the Day-Ahead using gas prices published on the prior day, unless gas prices are not published on that day, in which case the CAISO will use the most recently published prices that are available. For the Real-Time Market, the CAISO will update gas price indices between the hours of 19:00 and 22:00 Pacific Time using gas prices published in the Day-Ahead, unless gas prices are not published on that day, in which case the CAISO will use the most recently published prices that are available. The default value for the Variable Operation and Maintenance Cost portion will be \$2/MWh. Generating Units that are of the Combustion Turbine or Reciprocating Engine technology will be eligible for a default Variable Operation and Maintenance Cost of \$4/MWh. Resource specific values may be negotiated with the Independent Entity charged with calculating the Default Energy Bid.

39.7.1.2 LMP Option.

The CAISO will calculate the LMP Option for the Default Energy Bid as a weighted average of the lowest quartile of LMPs at the Generating Unit PNode in periods when the unit was Dispatched during the preceding ninety (90) days. The weighted average will be calculated based on the quantities Dispatched

within each segment of the Default Energy Bid curve. The LMP Option for Default Energy Bids will not be available until ninety (90) days of LMP pricing has occurred. Each Bid segment created under the LMP Option for Default Energy Bids will be subject to a feasibility test, as set forth in a Business Practice Manual, to determine whether there are a sufficient number of data points to allow for the calculation of an LMP based Default Energy Bid. The feasibility test is designed to avoid excessive volatility of the Default Energy Bid under the LMP Option that could result when calculated based on a relatively small number of prices.

39.7.1.3 Negotiated Rate Option.

39.7.1.3.1 Submission Process

Scheduling Coordinators that elect the Negotiated Rate Option for the Default Energy Bid shall submit a proposed Default Energy Bid along with supporting information and documentation as described in a BPM. Within ten (10) Business Days of receipt, the CAISO or an Independent Entity selected by the CAISO will provide a written response. If the CAISO or Independent Entity accepts the proposed Default Energy Bid, it will become effective within three (3) Business Days from the date of acceptance by the CAISO and remain in effect until: (1) the Default Energy Bid is modified by FERC; (2) the Default Energy Bid is modified by mutual agreement of the CAISO and the Scheduling Coordinator; or (3) the Default Energy Bid expires, is terminated or is modified pursuant to any agreed upon term or condition or pertinent FERC order.

If the CAISO or Independent Entity selected by the CAISO does not accept the proposed Default Energy Bid, the CAISO or Independent Entity selected by the CAISO and the Scheduling Coordinator shall enter a period of good faith negotiations that terminates sixty (60)-days following the date of submission of a proposed Default Energy Bid by a Scheduling Coordinator. If at any time during this period, the CAISO or Independent Entity selected by the CAISO and the Scheduling Coordinator agree upon the Default Energy Bid, it will be become effective within three (3) Business Days of the date of agreement and

remain in effect until: (1) the Default Energy Bid is modified by FERC; (2) the Default Energy Bid is modified by mutual agreement of the CAISO and the Scheduling Coordinator; or (3) the Default Energy Bid expires, is terminated or is modified pursuant to any agreed upon term or condition or pertinent FERC order.

If by the end of the sixty (60)-day period the CAISO or Independent Entity selected by the CAISO and the Scheduling Coordinator fail to agree on the Default Energy Bid to be used under the Negotiated Rate Option, the Scheduling Coordinator has the right to file a proposed Default Energy Bid with FERC pursuant to Section 205 of the Federal Power Act.

During the sixty (60)-day period following the submission of a proposed negotiated Default Energy Bid by a Scheduling Coordinator, and pending FERC's acceptance in cases where the CAISO or Independent Entity selected by the CAISO fail to agree on the Default Energy Bid for use under the Negotiated Rate Option and the Scheduling Coordinator filed a proposed Default Energy Bid with FERC pursuant to Section 205 of the Federal Power Act, the Scheduling Coordinator has the option of electing to use any of the other options available pursuant to Section 39.7. If the Scheduling Coordinator does not elect to use any of the other options available pursuant to Section 39.7, or if sufficient data do not exist to calculate a Default Energy Bid using any of these options, the CAISO may establish a temporary Default Energy Bid as specified in Section 39.7.1.5.

39.7.1.3.2 Informational Filings With FERC

The CAISO shall make an informational filing with FERC of any Default Energy Bids negotiated pursuant to this section, or any temporary Default Energy Bids established pursuant to Section 39.7.1.5, no later than seven (7) days after the end of the month in which the Default Energy Bids were established.

39.7.1.4 Frequently Mitigated Unit Option.

A Frequently Mitigated Unit that is eligible for a Bid Adder may select a fourth Default Energy Bid option, which is equal to the Variable Cost Option plus the Bid Adder as described in Section 39.7.

39.7.1.5 Temporary Default Energy Bid.

If the Scheduling Coordinator does not elect to use any of the other options available pursuant to Section 39.7.1, or if sufficient data do not exist to calculate a Default Energy Bid using any of the available options, the CAISO will first seek to obtain from the Scheduling Coordinator any additional data required for calculating the Default Energy Bid options available pursuant to 39.7.1. If the provision of additional data by a Scheduling Coordinator results in additional or modified Default Energy Bid options pursuant to 39.7.1, the Scheduling Coordinator will have another opportunity to elect one of these options as its temporary Default Energy Bid. If the Scheduling Coordinator does not elect to use any of the other new options available pursuant to Section 39.7.1, or if sufficient data still do not exist to calculate a Default Energy Bid using any of the available options, the CAISO may establish a temporary Default Energy Bid based on one or more of the following: (1) operating cost data, opportunity cost, and other appropriate input from the Market Participant; (2) the CAISO's estimated operating costs of the Electric Facility, taking the best information available to the CAISO; (3) an appropriate average of competitive Bids of one or more similar Electric Facilities; or (4) any of the other options for determining a Default Energy Bid for which data are available.

39.7.1.6 Default Energy Bids for RMR Units.

The available capacity in excess of the Maximum Net Dependable Capacity (MNDC) specified in the RMR Contract up to the maximum generation capacity (PMax) is subject to Local Market Power Mitigation. The Scheduling Coordinator for the RMR Unit must rank order its preferences between the Variable Cost Option, the LMP Option, and the Negotiated Rate Option, which shall be the default rank order if no rank order is specified by the Scheduling Coordinator. These preferences will be used to determine the Default Energy Bids for the capacity between the MNDC and PMax. RMR Proxy Bids for RMR Units based on contractually specified costs are used in lieu of Default Energy Bids for the contractual RMR Unit capacity between the minimum generating capacity (PMin) and the MNDC. The

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CAISO or Independent Entity will concatenate these two calculation methodologies (for calculating RMR Proxy Bids and Default Energy Bids for RMR Units) and will adjust them for monotonicity without lowering any price on either curve to create a single Energy Bid Curve to be used in the MPM-RRD processes as described in Sections 31 and 33 for the DAM and RTM, respectively. RMR Units are not eligible to receive a Bid Adder pursuant to Section 39.8 for contractual RMR Unit capacity between PMin and MNDC.

39.7.2 Competitive Path Designation.

39.7.2.1 Timing of Assessments.

The CAISO will complete the first assessment of competitiveness of transmission constraints prior to the effective date of this provision. Constraint designations resulting from the first assessment will be applied in the MPM-RRD mechanism on the day this CAISO Tariff becomes effective and will not be changed until a subsequent assessment has been performed. The CAISO may perform additional competitive constraint assessments during the year if changes in transmission infrastructure, generation resources, or Load, in the CAISO Balancing Authority Area and adjacent Balancing Authority Areas suggest material changes in market conditions or if market outcomes are observed that are inconsistent with competitive market outcomes.

39.7.2.2 Criteria.

A transmission constraint will be deemed competitive if no three unaffiliated suppliers are jointly pivotal in relieving congestion on that constraint. The determination of whether or not the pivotal supplier criteria for an individual constraint are violated will be assessed using the Feasibility Index described in Section 39.7.2.4. Assessment of competitiveness will be performed assuming various system conditions potentially including but not limited to season, load, planned transmission and resource outages. If an individual constraint fails the pivotal supplier criteria under any of these system conditions, the constraint will be deemed uncompetitive for the entire year under all system conditions until a subsequent

assessment deems the constraint competitive. In general, a constraint may be an individual transmission line or a collection of lines that create a distinct transmission constraint. For purposes of the competitive assessment, the set of constraints that will be included in the network model are those modeled along with transmission limits to be enforced in the FNM used in clearing the CAISO Markets.

39.7.2.3 Candidate Path Identification.

The first assessment of competitive constraints will be determined prior to the effective date of this provision and will consider all interfaces to neighboring control areas and all inter-zonal interfaces for zones that existed prior to the effective date of this provision to be competitive. The set of candidate constraints that will be evaluated for competitiveness in the initial assessment will be limited to intra-zonal constraints for zones that existed prior to the effective date of this provision, that were managed for Congestion in Real-Time in greater than five hundred (500) hours in the most recent twelve (12)-month period. The Congestion frequency threshold of five-hundred (500) hours for designation of competitive constraint candidates will be based on the combination of real-time intra-zonal congestion hours that predated the effective date of this provision, and congestion in IFM and Real-Time markets after the effective date of this provision for the twelve (12) months of historical data. Subsequent assessments will again consider all pre-existing interfaces to neighboring control areas and all inter-zonal interfaces to be competitive and will not be included in the set of candidate constraints for assessment. The set of candidate constraints will be further reduced to those remaining constraints that were congested or managed for congestion in greater than five hundred (500) hours in the prior twelve (12) months.

39.7.2.4 Feasibility Index.

The CAISO will perform a pivotal supplier test on all suppliers in the CAISO Balancing Authority Area for each path to be assessed using the Feasibility Index (FI). Suppliers will be considered in two groups: those suppliers with the largest portfolios will be considered in the preliminary simulations, and any additional suppliers who are likely to be pivotal given the competitive designations from the preliminary

simulations. The FI requires solving the network model having removed all internal resources of a supplier and modifying the candidate constraints of the network model such that the flow limits of the set of candidate constraints can be exceeded with a penalty imposed for excess flow. The resulting solution to the network model produces constraint flows that can be used to calculate the FI. The FI is calculated for each constraint as the proportion of the constraint limit that is exceeded to solve the FNM without the specified supplier's supply. FI values less than zero indicate the supplier is pivotal in relieving Congestion on the specified constraint. The process is repeated by removing the supply portfolio of two and three suppliers for paths with non-negative FI. If any three suppliers are jointly pivotal in relieving congestion on a candidate path, as indicated by an FI value less than zero, the candidate path will be deemed uncompetitive. Otherwise, the candidate path will be deemed competitive. The portfolio of each supplier will be based on ownership information available to the CAISO, taking into account any material transfer of sufficient length that the transfer of control could have persistent impact on the relative shares of supply within the CAISO Balancing Authority Area. These transfers of control will be utilized in the assessment as provided to the CAISO by the supplier reflecting its triennial filing with FERC for market-based rate authority.

39.8 Eligibility for Bid Adder.

A Scheduling Coordinator submitting Bids for Generating Units is eligible to have a Bid Adder applied to a Generating Unit for the next operating month if the criteria in Section 39.8.1 are met as determined on a monthly basis in the preceding month.

39.8.1 Bid Adder Eligibility Criteria.

To receive a Bid Adder, a Generating Unit must: (i) have a Mitigation Frequency that is greater than eighty percent (80%) percent in the previous twelve (12) months; and (ii) must not have an contract to be a Resource Adequacy Resource for its entire net dependable capacity or be subject to an obligation to make capacity available under this CAISO Tariff. Additionally, the Scheduling Coordinator for the

Generating Unit must agree to be subject to the Frequently Mitigated Unit Option for a Default Energy Bid. Run hours are those hours during which a Generating Unit has positive metered output. During the first twelve (12) months after the effective date of this Section, the Mitigation Frequency will be based on a rolling twelve (12)-month combination of RMR dispatches and incremental bids dispatched out of economic merit order to manage local congestion from the period prior to the effective date of this Section, which will serve as a proxy for being subject to Local Market Power Mitigation, and a Generating Unit's Local Market Power Mitigation frequency after the effective date of this Section. Generating Units that received RMR dispatches and/or incremental bids dispatched out of economic merit order to manage local Congestion in an hour prior to the effective date of this Section will have that hour counted as a mitigated hour in their Mitigation Frequency. After the first twelve (12) months from the effective date of this Section, the Mitigation Frequency will be based entirely on a Generating Unit being mitigated under the MPM-RRD procedures in Sections 31 and 33.

39.8.2 New Generating Units.

For new Generating Units, with less than twelve (12)-months of operation, determination of eligibility for the Bid Adder will be based on data beginning with the first date the Generating Unit participated in the CAISO Markets through the end date of the period for which the Mitigation Frequency is being calculated. The 200 run hour criteria will be pro-rated for the proportion of a twelve (12)-month period that the new Generating Unit submitted effective Bids in the CAISO markets.

39.8.3 Bid Adder Values.

The value of the Bid Adder will be either: (i) a unit-specific value determined in consultation with the CAISO or an independent entity selected by the CAISO, or (ii) a default Bid Adder of \$24/MWh. For Generating Units with a portion of their capacity identified as meeting an LSE's Resource Adequacy Requirements, that Generating Unit's Bid Adder value will be reduced by the percent of the Generating Unit's capacity that is identified as meeting an LSE's Resource Adequacy Requirements. The reduced Bid Adder will be applied to that Generating Unit's entire Default Energy Bid Curve.

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39.9 **CRR Monitoring and Affiliate Disclosure Requirements.**

The CAISO will monitor the CRR holdings and CAISO Markets activity for anomalous market behavior, gaming, or exercise of market power resulting from CRR ownership concentrations that are not aligned with actual transmission usage as a result of secondary market auction outcomes. If the CAISO identifies such behavior it may seek FERC approval to impose position limits on the total number or MW quantity of CRRs that may be held by any single entity and its affiliates. CRR Holders must notify the CAISO of all entities with which the CRR Holder is affiliated that are CRR Holders or Market Participants.

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ARTICLE V - RESOURCE ADEQUACY

40 RESOURCE ADEQUACY DEMONSTRATION FOR ALL SCHEDULING COORDINATORS BIDDING AND SCHEDULING DEMAND IN THE CAISO **BALANCING AUTHORITY AREA.**

40.1 Applicability.

A Load Serving Entity, and its Scheduling Coordinator, shall be exempt from this Section 40 during the next Resource Adequacy Compliance Year, if the metered peak Demand of the Load Serving Entity did not exceed one (1) MW during the twelve months preceding the last date on which the Load Serving Entity can make the election in Section 40.1.1 for the next Resource Adequacy Compliance Year. This Section 40 shall apply to all other Load Serving Entities and their respective Scheduling Coordinators. For purposes of Section 40, a Load Serving Entity shall not include any entity satisfying the terms of California Public Utilities Code Section 380(j)(3).

40.1.1 **Election of Load Serving Entity Status.**

On an annual basis, in the manner and schedule set forth in the Business Practice Manual, the Scheduling Coordinator for a Load Serving Entity, not exempt under Section 40.1, shall inform the CAISO whether each such LSE elects to be either: (i) a Reserve Sharing LSE or (ii) a Modified Reserve Sharing LSE. A Scheduling Coordinator for a Load following MSS is not required to make an election under this Section. Scheduling Coordinators for Load following MSSs are subject solely to Sections 40.2.4 and 40.3.

The CAISO may confirm with the CPUC, Local Regulatory Authority, or federal agency, as applicable, the accuracy of the election by the Scheduling Coordinator for any LSE under its respective jurisdiction, or, in the absence of any election by the Scheduling Coordinator, the desired election for any LSE under its jurisdiction. The determination of the CPUC, Local Regulatory Authority, or federal agency will be deemed binding by the CAISO on the Scheduling Coordinator and the LSE. If the Scheduling Coordinator and CPUC, Local Regulatory Authority, or federal agency, as appropriate, fail to make the election on behalf of an LSE in accordance with the Business Practice Manual, the LSE shall be deemed a Reserve Sharing LSE.

Issued on: December 21, 2007

- 40.2 Information Requirements Regarding Resource Adequacy Programs.
- 40.2.1 Reserve Sharing LSEs.
- 40.2.1.1 Requirements for CPUC Load Serving Entities Electing Reserve Sharing LSE Status.
 - (a) The Scheduling Coordinator for a CPUC Load Serving Entity electing Reserve Sharing LSE status must provide the CAISO with all information or data to be provided to the CAISO as required by the CPUC and pursuant to the schedule adopted by the CPUC.
 - (b) Where the information or data provided to the CAISO under Section 40.2.1.1(a) does not include Reserve Margin(s), then the provisions of Section 40.2.2.1(b) shall apply.
 - (c) Where the information or data provided to the CAISO under Section 40.2.1.1(a) does not include criteria for determining qualifying resource types and their Qualifying Capacity, then the provisions of Section 40.8 shall apply.
 - (d) Where the information or data provided to the CAISO under Section 40.2.1.1(a) does not include annual and monthly Demand Forecast requirements, then the provisions of Section 40.2.2.3 shall apply.
 - (e) Where the information or data provided to the CAISO under Section 40.2.1.1(a) does not include annual and monthly Resource Adequacy Plan requirements, then Section 40.2.2.4 shall apply.

40.2.2 Requirements for Non-CPUC Load Serving Entities Electing Reserve Sharing LSE Status, Including Default Provisions for CPUC Load Serving Entities.

40.2.2.1 Reserve Margin.

- (a) The Scheduling Coordinator for a Non-CPUC Load Serving Entity electing
 Reserve Sharing LSE status must provide the CAISO with the Reserve Margin(s)
 adopted by the appropriate Local Regulatory Authority or federal agency for use
 in the annual Resource Adequacy Plan and monthly Resource Adequacy Plans
 listed as a percentage of the Demand Forecasts developed in accordance with
 Section 40.2.2.3.
- (b) For the Scheduling Coordinator for a Non-CPUC Load Serving Entity for which the appropriate Local Regulatory Authority or federal agency has not established a Reserve Margin(s) or a CPUC Load Serving Entity subject to Section 40.2.1.1(b) that has elected Reserve Sharing LSE status, the Reserve Margin for each month shall be no less than fifteen percent (15%) of the LSE's peak hourly Demand for the applicable month, as determined by the Demand Forecasts developed in accordance with Section 40.2.2.3.

40.2.2.2 Qualifying Capacity Criteria.

The Scheduling Coordinator for a Non-CPUC Load Serving Entity electing Reserve Sharing LSE status must provide the CAISO with a description of the criteria adopted by the Local Regulatory Authority or federal agency for determining qualifying resource types and the Qualifying Capacity from such resources and any modifications thereto as they are implemented from time to time. The Reserve Sharing LSE may elect to utilize the criteria set forth in Section 40.8.

40.2.2.3 Demand Forecasts.

The Scheduling Coordinator for a Non-CPUC Load Serving Entity or CPUC Load Serving Entity subject to Section 40.2.1.1(b) electing Reserve Sharing LSE status must provide annual and monthly Demand Forecasts on the schedule and in the reporting format(s) set forth in the Business Practice Manual. The annual and monthly Demand Forecasts shall utilize the annual and monthly coincident peak Demand determinations provided by the California Energy Commission for such Load Serving Entity, which will be calculated from the Demand Forecast information submitted to the California Energy Commission by each Reserve Sharing LSE; or (ii) if the California Energy Commission does not produce coincident peak Demand Forecasts for the Load Serving Entity, the annual and monthly coincident peak Demand Forecasts produced by the CAISO for such Load Serving Entity in accordance with its Business Practice Manual. Scheduling Coordinators must provide data and information, as may be requested by the CAISO, necessary to develop or support the Demand Forecasts required by this Section.

40.2.2.4 Annual and Monthly Resource Adequacy Plans.

The Scheduling Coordinator for a Non-CPUC Load Serving Entity or a CPUC Load Serving Entity subject to Section 40.2.1.1(b) electing Reserve Sharing LSE status must provide annual and monthly Resource Adequacy Plans for such Load Serving Entity, on a schedule and in the reporting format(s) set forth in the Business Practice Manual. The annual Resource Adequacy Plan must, at a minimum, set forth the Local Capacity Area Resources, if any, procured by the Load Serving Entity as described in Section 40.3. The monthly Resource Adequacy Plan should identify all resources, including Local Capacity Area Resources, the Load Serving Entity will rely upon to satisfy the applicable month's peak hour Demand of the Load Serving Entity as determined by the Demand Forecasts developed in accordance with Section 40.2.2.3 and applicable Reserve Margin. Resource Adequacy Plans must utilize the Net Qualifying Capacity requirements of Section 40.4.

40.2.3 Modified Reserve Sharing LSEs.

40.2.3.1 Reserve Margin.

- (a) The Scheduling Coordinator for a Load Serving Entity electing Modified Reserve Sharing LSE status must provide the CAISO with the Reserve Margin(s) adopted by the CPUC, Local Regulatory Authority, or federal agency, as appropriate, for use in the annual Resource Adequacy Plan and monthly Resource Adequacy Plans listed as a percentage of the Demand Forecasts developed in accordance with Section 40.2.3.3.
- (b) For the Scheduling Coordinator for a Load Serving Entity electing Modified
 Reserve Sharing LSE status for which the CPUC, Local Regulatory Authority, or
 federal agency, as appropriate, has not established a Reserve Margin, the
 Reserve Margin shall be no less than fifteen percent (15%) of the applicable
 month's peak hour Demand of the Load Serving Entity, as determined by the
 Demand Forecasts developed in accordance with Section 40.2.3.3.

40.2.3.2 Qualifying Capacity.

The Scheduling Coordinator for a Load Serving Entity electing Modified Reserve Sharing LSE status must provide the CAISO with a description of the criteria for determining qualifying resource types and the Qualifying Capacity from such resources and any modifications thereto as they are implemented from time to time. The Modified Reserve Sharing LSE may elect to utilize the criteria set forth in Section 40.8.

40.2.3.3 Demand Forecasts.

(a) The Scheduling Coordinator for a Load Serving Entity electing Modified Reserve
Sharing LSE status must provide annual and monthly Demand Forecasts on the
schedule and in the reporting format(s) set forth in the Business Practice Manual.
The annual and monthly Demand Forecasts shall utilize the annual and monthly
coincident peak Demand determinations provided by the California Energy
Commission for such Load Serving Entity, which will be calculated from Demand

Forecast data submitted to the California Energy Commission by each Modified Reserve Sharing LSE; or (ii) if the California Energy Commission does not produce coincident peak Demand Forecasts for the Load Serving Entity, the annual and monthly coincident peak Demand Forecasts produced by the CAISO for such Load Serving Entity in accordance with its Business Practice Manual. Scheduling Coordinators must provide data and information, as may be requested by the CAISO, to develop or support the Demand Forecast required by this Section 40.2.3.3(b).

(b) The Scheduling Coordinator for a Load Serving Entity electing Modified Reserve Sharing LSE status must submit, on the schedule and in the reporting format set forth in the Business Practice Manual, hourly Demand Forecasts for each Trading Hour of the next Trading Day for each Modified Reserve Sharing LSE represented. The Scheduling Coordinator for a Load Serving Entity electing Modified Reserve Sharing LSE status must provide data or supporting information, as requested by the CAISO, for the Demand Forecasts required by this Section 40.2.3.3(b) for each Modified Reserve Sharing LSE served by the Scheduling Coordinator and a description of the criteria upon which the Demand Forecast was developed, and any modifications thereto as they are implemented from time to time.

40.2.3.4 Annual and Monthly Resource Adequacy Plans.

The Scheduling Coordinator for a Load Serving Entity electing Modified Reserve Sharing LSE status must provide annual and monthly Resource Adequacy Plans, on a schedule and in the reporting format(s) set forth in the Business Practice Manual, for each Modified Reserve Sharing LSE served by the Scheduling

Coordinator. The annual Resource Adequacy Plan must, at a minimum, set forth the Local Capacity Area Resources, if any, procured by the Modified Reserve Sharing LSE as described in Section 40.3. The monthly Resource Adequacy Plan must identify the resources the Modified Reserve Sharing LSE will rely upon to satisfy its forecasted monthly Demand and Reserve Margin as set forth in Section 40.2.3.1, for the relevant reporting period and must utilize the Net Qualifying Capacity requirements of Section 40.4.

40.2.4 Load Following MSS.

A Scheduling Coordinator for a Load following MSS must provide an annual Resource Adequacy Plan that sets forth, at a minimum, the Local Capacity Area Resources, if any, procured by the Load following MSS as described in Section 40.3. The annual Resource Adequacy Plan shall utilize the annual coincident peak Demand determination provided by the California Energy Commission for such Load following MSS using Demand Forecast data submitted to the California Energy Commission by the Load following MSS, or, if the California Energy Commission does not produce coincident peak Demand Forecasts for the Load following MSS, the annual coincident peak Demand Forecast produced by the CAISO for such Load following MSS in accordance with its Business Practice Manual using Demand Forecast data submitted to the CAISO by the Load following MSS.

40.3 Local Capacity Area Resource Requirements Applicable to Scheduling Coordinators for All Load Serving Entities.

40.3.1 Local Capacity Technical Study.

On an annual basis, pursuant to the schedule set forth in the Business Practice Manual, the CAISO will, perform, and publish on the CAISO Website the Local Capacity Technical Study. The Local Capacity Technical Study shall identify Local Capacity Areas, determine the minimum amount of Local Capacity Area Resources in MW that must be available to the CAISO within each identified Local Capacity Area, and identify the Generating Units within each identified Local Capacity Area. The CAISO shall

collaborate with the CPUC, Local Regulatory Authorities within the CAISO Balancing Authority Area, federal agencies, and Market Participants to ensure that the Local Capacity Technical Study is performed in accordance with this Section 40.3 and to establish for inclusion in the Business Practice Manual other parameters and assumptions applicable to the Local Capacity Technical Study and a schedule that provides for: (i) reasonable time for review of a draft Local Capacity Technical Study, (ii) reasonable time for Participating TOs to propose operating solutions, and (iii) release of the final Local Capacity Technical Study no later than 120 days prior to the date annual Resource Adequacy Plans must be submitted under this Section 40.

40.3.1.1 Local Capacity Technical Study Criteria.

The Local Capacity Technical Study will determine the minimum amount of Local Capacity Area Resources needed to address the Contingencies identified in Section 40.3.1.2. In performing the Local Capacity Technical Study, the CAISO will apply those methods for resolving Contingencies considered appropriate for the performance level that corresponds to a particular studied Contingency, as provided for in the version of the WECC Reliability Criteria, NERC/WECC Planning Standard I.A, in effect as of the date that the Local Capacity Technical Study is commenced to the extent such application will not result in a violation of Reliability Criteria adopted by the CAISO in accordance with Section 5.1.5 of the Transmission Control Agreement.

40.3.1.2 Local Capacity Technical Study Contingencies.

The Local Capacity Technical Study shall assess the following Contingencies:

Contingency Component(s)	Reference Notes
NERC/WECC Performance Level A – No Contingencies	
NERC/WECC Performance Level B – Loss of a single element	
1. Generator (G-1)	1
2. Transmission Circuit (L-1)	1
3. Transformer (T-1)	1,2
4. Single Pole (dc) Line	1
5. G-1 system readjusted L-1	
NERC/WECC Performance Level C – Loss of two or more elements	
3. L-1 system readjusted G-1	
3. G-1 system readjusted T-1 or T-1 system readjusted G-1	
3. L-1 system readjusted T-1 or T-1 system readjusted L-1	
3. G-1 system readjusted G-1	
3. L-1 system readjusted L-1	
4. Bipolar (dc) Line	
5. Two circuits (Common Mode) L-2	
9. SLG fault (stuck breaker or protection failure) for Bus section WECC-S3. Two generators (Common Mode) G-2	
D – Extreme event – loss of two or more elements	
Any B1-4 system readjusted (Common Mode) L-2 All other extreme combinations D1-14.	3

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NOTES

1 System must be able to readjust to a safe operating zone in order to be able to support the loss of the next system element that would constitute a Contingency. Manual readjustment is the time required for an operator to take all actions necessary to prepare the system for the next Contingency. Under CAISO Grid Planning Standards, this time must be less than 30 minutes. However, if remote capability does not exist and a person must be dispatched in the field to perform switching, an exemption may be approved for small Local Capacity Areas as described in approved operating procedures and the approved operating procedure will be assumed in the performance of the studies under this Section.

The involuntary interruption of Load shall not constitute an action for readjustment after a Category B event.

2 A thermal or voltage criterion violation resulting from a transformer Outage may not be cause for a Local Capacity Area reliability requirement if the violation is considered marginal (e.g., acceptable loss of facility life or low voltage), otherwise, such a violation will necessitate creation of a requirement.

³ Evaluate for risks and consequence, per NERC/WECC standards. No voltage collapse or dynamic instability allowed.

40.3.2 Allocation of Local Capacity Area Resource Obligations.

The CAISO will allocate responsibility for Local Capacity Area Resources to Scheduling Coordinators for Load Serving Entities in the following sequential manner:

- The responsibility for the aggregate Local Capacity Area Resources required for (a) all Local Capacity Areas within each TAC Area as determined by the Local Capacity Technical Study will be allocated to all Scheduling Coordinators for Load Serving Entities that serve Load in the TAC Area in accordance with the Load Serving Entity's proportionate share of the LSE's TAC Area Load at the time of the CAISO's annual coincident peak Demand set forth in the annual peak Demand Forecast for the next Resource Adequacy Compliance Year as determined by the California Energy Commission. Expressed as a formula, the allocation of Local Area Capacity Resource obligations will be as follows: (∑ Local Capacity Area MW in TAC Area from the Local Capacity Technical Study) * (LSE Demand in TAC Area at CAISO annual coincident peak Demand)/(Total TAC Area Demand at the time of CAISO annual coincident peak Demand). This will result in a MW responsibility for each Load Serving Entity for each TAC Area in which the LSE serves Load. The LSE may meet its MW responsibility, as assigned under this Section, for each TAC Area in which the LSE serves Load by procurement of that MW quantity in any Local Capacity Area in the TAC Area.
- (b) For Scheduling Coordinators for Non-CPUC Load Serving Entities, the Local Capacity Area Resource obligation will be allocated based on Section 40.3.2(a) above.

(c) For Scheduling Coordinators for CPUC Load Serving Entities, the CAISO will allocate the Local Capacity Area Resource obligation based on an allocation methodology, if any, adopted by the CPUC. However, if the allocation methodology adopted by the CPUC does not fully allocate the total sum of each CPUC Load Serving Entity's proportionate share calculated under Section 40.3.2(a), the CAISO will allocate the difference to all Scheduling Coordinators for CPUC Load Serving Entities in accordance with their proportionate share calculated under 40.3.2(a). If the CPUC does not adopt an allocation methodology, the CAISO will allocate Local Capacity Area Resources to Scheduling Coordinators for CPUC Load Serving Entities based on Section 40.3.2(a).

Once the CAISO has allocated the total responsibility for Local Capacity Area Resources, the CAISO will inform the Scheduling Coordinator for each LSE of the LSE's specific allocated responsibility for Local Capacity Area Resources in each TAC Area in which the LSE serves Load.

40.3.3 Procurement of Local Capacity Area Resource Obligations by Load Serving Entities.

Nothing in this Section 40 obligates any Scheduling Coordinator to demonstrate on behalf of a Load Serving Entity that the Load Serving Entity has procured Local Capacity Area Resources to satisfy capacity requirements for each Local Capacity Area identified in the technical study. Scheduling Coordinators for Load Serving Entities may aggregate responsibilities for procurement of Local Capacity Area Resources. If a Load Serving Entity has procured Local Capacity Area Resources that satisfy generation capacity requirements for Local Capacity Areas, the Scheduling Coordinator for such Load Serving Entity shall include this information in its annual and monthly Resource Adequacy Plan(s).

40.3.4 Procurement of Local Capacity Area Resources by the CAISO.

The CAISO may procure Local Capacity Area Resources, pursuant to applicable provisions of the CAISO Tariff, including any mechanism incorporated into the CAISO Tariff specifically to permit procurement of Local Capacity Area Resources by the CAISO, to the extent:

(a) a Scheduling Coordinator representing a Load Serving Entity serving Load in the TAC Area in which the Local Capacity Area is located fails to demonstrate in an annual Resource Adequacy Plan procurement of the Load Serving Entity's share of Local Capacity Area Resources, as determined in Section 40.3.2, in which case the CAISO may procure Local Capacity Area Resources to remedy the deficiency; provided that the CAISO shall not procure Local Capacity Area Resources to remedy the deficiency of the Load Serving Entity unless in the aggregate a deficiency in the Local Capacity Area exists that results in the failure to comply with the Reliability Criteria applied in the Local Capacity Technical Study, after assessing the effectiveness of Generating Units under Reliability Must-Run Contracts, if any, and all Resource Adequacy Resources reflected in all submitted annual Resource Adequacy Plans and any supplements thereto, as may be permitted by the CPUC, Local Regulatory Authority, or federal agency and provided to the CAISO in accordance with Section 40.7, whether or not such Resource Adequacy Resources are located in the applicable Local Capacity Area: or

(b) the Local Capacity Area Resources specified in the annual Resource Adequacy
Plans of all Scheduling Coordinators fail to permit or ensure compliance in one or
more Local Capacity Areas with the Reliability Criteria applied in the Local
Capacity Technical Study, regardless of whether such resources satisfy, for the
deficient Local Capacity Area, the minimum amount of Local Capacity Area
Resources identified in the Local Capacity Technical Study and after assessing
the effectiveness of Generating Units under Reliability Must-Run Contracts, if
any, and all Resource Adequacy Resources reflected in all submitted annual
Resource Adequacy Plans, whether or not such Resource Adequacy Resources
are located in the applicable Local Capacity Area, in which case the CAISO will
procure Local Capacity Area Resources in the Local Capacity Area in an amount
and location sufficient to permit or ensure compliance with the Reliability Criteria
applied in the Local Capacity Technical Study.

The cost of CAISO procurement under this Section shall be allocated in accordance with Section 11. To the extent the cost of CAISO procurement under this Section is allocated to a Scheduling Coordinator on behalf of a Load Serving Entity, that Scheduling Coordinator will receive credit toward its Local Capacity Area Resource obligation for the Load Serving Entity's pro rata share of the procured Local Capacity Area Resources. Whether or not the share of the Local Capacity Area Resources procured by the CAISO under this Section may count towards satisfaction of a Load Serving Entity's Reserve Margin shall be determined by the CPUC, Local Regulatory Authority, or federal agency with jurisdiction over the Load Serving Entity, unless the CPUC, Local Regulatory Authority, or federal agency has failed to establish a Reserve Margin, in which case the CAISO will assign the Load Serving Entity's share of the Local Capacity Area Resources towards satisfaction of its Reserve Margin pursuant to Sections

40.2.1.1(b), 40.2.2.1(b), and 40.2.3.1(b). For each Scheduling Coordinator that is allocated the cost of CAISO procurement under this Section on behalf of an LSE, the CAISO will provide information, including the quantity of capacity procured in MW, necessary to allow the CPUC, Local Regulatory Authority, or federal agency with jurisdiction over the LSE on whose behalf costs were allocated to determine whether the LSE should receive credit toward its Reserve Margin for the CAISO's procurement under this Section.

40.3.4.1 Factors for Procuring Local Capacity Area Resources.

The CAISO shall procure Local Capacity Area Resources under Section 40.3.4 considering the effectiveness of the capacity at meeting the Reliability Criteria, set forth in 40.3.1, in the Local Capacity Area and the costs associated with the capacity. The CAISO is permitted to procure a Generating Unit or Participating Load resource even where only a portion of capacity of the Generating Unit or Participating Load resource is needed to meet the Reliability Criteria applied in the Local Capacity Technical Study for the Local Capacity Area.

40.3.4.2 Local Capacity Area Procurement Report.

Within ninety (90) days of any initial procurement of Local Capacity Area Resources by the CAISO for any Resource Adequacy Compliance Year, the CAISO shall publish a report on the CAISO Website showing the Local Capacity Area Resources procured under Section 40.3.4, the megawatts of capacity procured, the duration of the procurement, the reason(s) for the procurement, and all payments in dollars, itemized for each Local Capacity Area. The CAISO will provide a Market Notice regarding the availability of this report, and shall update the report within ninety (90) days of any Local Capacity Area Resource that is procured after the posting of the report.

40.4 General Requirements on Resource Adequacy Resources.

Designation of Eligible Resources and Determination of Qualifying Capacity. 40.4.1

The CAISO shall use the criteria provided by the CPUC or Local Regulatory Authority to determine and verify, if necessary, the Qualifying Capacity of all Resource Adequacy Resources; however, to the extent a resource is listed by one or more Scheduling Coordinators in their Resource Adequacy Plans, which apply the criteria of more than one Local Regulatory Authority that leads to conflicting Qualifying Capacity values for that resource, the CAISO will accept the methodology that results in the highest Qualifying Capacity value. Only if the CPUC, Local Regulatory Authority, or federal agency has not established any Qualifying Capacity criteria, or chooses to rely on the criteria in this CAISO Tariff, will the provisions of Section 40.8 apply.

Net Qualifying Capacity Report. 40.4.2

The CAISO shall produce an annual report posted to the CAISO Website on the schedule set forth in the Business Practice Manual that sets forth the Net Qualifying Capacity of all Participating Generators. All other Resource Adequacy Resources may be included in the annual report under Section 40.4.2 upon their request. The Net Qualifying Capacity of any resource included in the annual report, once posted to the CAISO Website, shall not be reduced by the CAISO for the next Resource Adequacy Compliance Year. Any change proposed to be made to a Net Qualifying Capacity value for a resource included in a prior annual report shall be explained, and any test results or analyses underlying the change provided, to the Scheduling Coordinator upon request at least fifteen (15) days prior to the posting on the CAISO Website of the annual report. Any disputes as to the CAISO's determination regarding Net Qualifying Capacity shall be subject to the CAISO ADR Procedures.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

40.4.3 General Qualifications for Supplying Net Qualifying Capacity.

Resource Adequacy Resources included in a Resource Adequacy Plan submitted by a Scheduling

Coordinator on behalf of a Load Serving Entity serving Load in the CAISO Balancing Authority Area must:

- (1) Be available for testing by the CAISO to validate Qualifying Capacity and determine Net Qualifying Capacity for the next Resource Adequacy Compliance Year;
- (2) Provide any information requested by the CAISO to apply the performance criteria to be adopted by the CAISO pursuant to Section 40.4.5;
- (3) Submit Bids into the CAISO Markets as required by this CAISO Tariff;
- (4) Be in compliance, as of the date that the CAISO performs any testing or otherwise determines Net Qualifying Capacity for the next Resource Adequacy Compliance Year, with the criteria for Qualifying Capacity established by the CPUC, relevant Local Regulatory Authority, or federal agency and provided to the CAISO; and
- (5) Be subject to Sanctions for non-performance as specified in the CAISO Tariff.

40.4.4 Reductions for Testing.

In accordance with the procedures specified in the Business Practice Manual, the Generating Unit of a Participating Generator or other Generating Units, System Units or Loads of Participating Loads included in a Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of a Load Serving Entity can have its Qualifying Capacity reduced, for purposes of the Net Qualifying Capacity annual report under Section 40.4.2 for the next Resource Adequacy Compliance Year, if a CAISO testing program determines that it is not capable of supplying the full Qualifying Capacity amount.

40.4.5 Reductions for Performance Criteria.

No later than 12 months after the effective date of this Section 40, the CAISO will issue a report outlining a proposal with respect to performance criteria for Resource Adequacy Resources. The CAISO will collaborate with the CPUC and other Local Regulatory Authorities to develop the performance criteria to be submitted to FERC. The Scheduling Coordinator for a Resource Adequacy Resource shall provide or make available to the CAISO, subject to the confidentiality provisions of this CAISO Tariff, all documentation requested by the CAISO to determine, develop or implement the performance criteria, including, but not limited to, NERC Generating Availability Data System data.

40.4.6 Reductions for Deliverability.

40.4.6.1 Deliverability Within the CAISO Balancing Authority Area.

In order to determine Net Qualifying Capacity from Resource Adequacy Resources subject to this Section 40.4, the CAISO will determine that a Resource Adequacy Resource is available to serve the aggregate of Load by means of a deliverability study. Documentation explaining the CAISO's deliverability analysis will be posted on the CAISO Website. The deliverability study will be performed annually and shall focus on peak Demand conditions. The results of the deliverability study shall be incorporated into the Net Qualifying Capacity annual report under Section 40.4.2 and will be effective for the next Resource Adequacy Compliance Year. To the extent the deliverability study shows that the Qualifying Capacity is not deliverable to the aggregate of Demand under the conditions studied, the Qualifying Capacity of the Resource Adequacy Resource will be reduced on a MW basis for the capacity that is undeliverable.

40.4.6.2 Deliverability of Imports.

40.4.6.2.1 Available Import Capability Assignment Process.

For Resource Adequacy Plans covering any period after December 31, 2007, total Available Import
Capability will be assigned on an annual basis for a one-year term to Load Serving Entities serving Load
in the CAISO Balancing Authority Area and other Market Participants through their respective Scheduling
Coordinators, as described by the following sequence of steps. However, should the CPUC modify by
decision its compliance period from January to December of the calendar year to May through April of the
calendar year, the CAISO shall extend the effectiveness of the assignment for Resource Adequacy
Compliance Year 2008 through April 2009.

Step 1: Determination of Maximum Import Capability on Interties into the CAISO Balancing Authority

Area: The CAISO shall establish the Maximum Import Capability for each Intertie into the CAISO

Balancing Authority Area, and will post those values on the CAISO Website in accordance with the schedule and process set forth in the Business Practice Manual.

Step 2: Determination of Available Import Capability by Accounting for Existing Contracts and

Transmission Ownership Rights Held by Out-of- Balancing Authority Area LSEs: For each Intertie,
the Available Import Capability will be determined by subtracting from the Maximum Import Capability
established in Step 1 for each Intertie the import capability on each Intertie associated with (i) Existing
Contracts and (ii) Transmission Ownership Rights held by load serving entities that do not serve Load
within the CAISO Balancing Authority Area. The remaining sum of all Intertie Available Import
Capability is the Total Import Capability. Total Import Capability shall be used to determine the Load
Share Quantity for each Load Serving Entity that serves Load within the CAISO Balancing Authority
Area.

Step 3: Determination of Existing Contract Import Capability by Accounting for Existing Contracts and Transmission Ownership Rights Held by CAISO Balancing Authority Area LSEs: From the Available Import Capability remaining on each Intertie after Step 2 above, Existing Contracts and Transmission Ownership Rights held by Load Serving Entities that serve Load within the CAISO Balancing Authority Area shall be reserved for the holders of such commitments and will not be subject to reduction under any subsequent steps in this Section. The import capability reserved pursuant to this Step 3 is the Existing Contract Import Capability.

Step 4: Assignment of Pre-RA Import Commitments: From the Available Import Capability remaining on each Intertie after reserving Existing Contract Import Capability under Step 3 above, the CAISO will assign to Load Serving Entities serving Load within the CAISO Balancing Authority Area Pre-RA Import Commitment Capability on a particular Intertie based on Pre-RA Import Commitments in effect (where a supplier has an obligation to deliver the Energy or make the capacity available) at any time during the Resource Adequacy Compliance Year for which the Available Import Capability assignment is being performed. The Pre-RA Import Commitment will be assigned to the Intertie selected by the Load Serving Entity during the Resource Adequacy Compliance Year 2007 import capability assignment process, which was required to be based on the Intertie upon which the Energy or capacity from the Pre-RA Import Commitment had been primarily scheduled or, for a Pre-RA Import Commitment without a scheduling history at the time of the Resource Adequacy Compliance Year 2007 import capability assignment process, the primary Intertie upon which the Energy or capacity was anticipated to be scheduled. To the extent a Pre-RA Import Commitment was not presented during the Resource Adequacy Compliance Year 2007 import capability assignment process, the Load Serving Entity shall select the Intertie upon which the Pre-RA Import Commitment is primarily anticipated to be scheduled during the term of the Pre-RA Import Commitment and that

selection shall be utilized in future annual Available Import Capability assignment processes. If a Pre-RA Import Commitment submitted on behalf of a LSE with Existing Contract Import Capability is assigned under this Section to the same Intertie on which the LSE holds Existing Contract Import Capability, the Pre-RA Import Commitment will be assumed to deliver over the Existing Contract Import Capability until exhausted, unless the LSE can demonstrate otherwise.

To the extent a particular Intertie becomes over requested with Pre-RA Import Commitments due to either Pre-RA Import Commitments not included in the Resource Adequacy Compliance Year 2007 import capability assignment process or changes in system conditions that decrease the Maximum Import Capability of the Intertie, such that the MW represented in all Pre-RA Import Commitments utilizing the Intertie exceed the Intertie's Available Import Capability in excess of that reserved for Existing Contracts and Transmission Ownership Rights under Steps 2 and 3, the Pre-RA Import Commitments will be assigned Pre-RA Import Commitment Capability, based on the Import Capability Load Share Ratio of each Load Serving Entity submitting Pre-RA Import Commitments on the particular Intertie. To the extent this initial assignment of Pre-RA Import Commitment Capability has not fully assigned the Available Import Capability of the particular over requested Intertie, the remaining Available Import Capability on the over requested Intertie will be assigned until fully exhausted based on the Import Capability Load Share Ratio of each Load Serving Entity whose submitted Pre-RA Import Commitment has not been fully satisfied by the previous Import Capability Load Share Ratio assignment iteration. The Available Import Capability assigned pursuant to this Step 4 is the Pre-RA Import Commitment Capability.

Step 5: Assignment of Remaining Import Capability Limited by Load Share Quantity: The Total Import Capability remaining after Step 4 will be assigned only to Load Serving Entities serving Load within the CAISO Balancing Authority Area that have not received Existing Contract Import Capability and Pre-RA Import Commitment Capability under Steps 3 and 4, that exceed the Load Serving Entity's Load Share Quantity. Only the MW quantity of any Pre-RA Import Commitment Capability assigned to Existing Contract Import Capability under Step 4 that exceeds the Existing Contract Import Capability on the particular Intertie will be counted for purposes of this Step 5. This Total Import Capability will be assigned until fully exhausted to those Load Serving Entities eligible to receive an assignment under this Step based on each Load Serving Entity's Import Capability Load Share Ratio up to, but not in excess of, its Load Share Quantity. The quantity of Total Import Capability assigned to the Load Serving Entity under this Step is the Load Serving Entity's Remaining Import Capability. This Step 5 does not assign Remaining Import Capability on a specific Intertie.

Step 6: CAISO Posting of Assigned and Unassigned Capability: Following the completion of Step 5, the CAISO will post to the CAISO Website, in accordance with the schedule set forth in the Business Practice Manual the following information:

- (a) The Total Import Capability;
- (b) The quantity in MW of Existing Contracts and Transmission Ownership Rights assigned to each Intertie, distinguishing between Existing Contracts and Transmission Ownership Rights held by Load Serving Entities within the CAISO Balancing Authority Area and those held by load serving entities outside the CAISO Balancing Authority Area;
- (c) The aggregate quantity in MW, and identity of the holders, of Pre-RA Import Commitments assigned to each Intertie; and

- (d) The aggregate quantity in MW of Available Import Capability after Step 4, the identity of the Interties with Available Import Capability, and the MW quantity of Available Import Capability on each such Intertie.
- Step 7: <u>CAISO Notification of LSE Assignment Information</u>: Following the completion of Step 5, in accordance with the schedule set forth in the Business Practice Manual, the CAISO will notify the Scheduling Coordinator for each Load Serving Entity of:
 - (a) The Load Serving Entity's Import Capability Load Share;
 - (b) The Load Serving Entity's Load Share Quantity; and
 - (c) The amount of, and Intertie on which, the Load Serving Entity's Existing Contract Import Capability and Pre-RA Import Commitment Capability, as applicable, has been assigned; and
 - (d) The Load Serving Entity's Remaining Import Capability.

Step 8: Transfer of Import Capability: In accordance with the schedule set forth in the Business Practice Manual, a Load Serving Entity shall be allowed to transfer some or all of its Remaining Import Capability to any other Load Serving Entity or Market Participant. The CAISO will accept transfers among LSEs and Market Participants only to the extent such transfers are reported to the CAISO, in accordance with the schedule set forth in the Business Practice Manual and through the CAISO's Import Capability Transfer Registration Process, by the entity receiving the Remaining Import Capability who must set forth (1) the name of the counter-parties, (2) the MW quantity, (3) term of transfer, and (4) price on a per MW basis. The CAISO will post to the CAISO Website by August 8, 2007 for Resource Adequacy Compliance Year 2008 and for subsequent Resource Adequacy Compliance Years in accordance with the schedule set forth in the Business Practice Manual the information on transfers of Remaining Import Capability received under this Step 8.

Step 9: Initial Scheduling Coordinator Request to Assign Remaining Import Capability by Intertie: In accordance with the schedule set forth in the Business Practice Manual, the Scheduling Coordinator for each Load Serving Entity or Market Participant shall notify the CAISO of its request to assign its post-trading Remaining Import Capability on a MW basis per available Intertie. Total requests for assignment of Remaining Import Capability by a Scheduling Coordinator cannot exceed the sum of the post-traded Remaining Import Capability of its Load Serving Entities. The CAISO will honor the requests to the extent an Intertie has not been over requested. If an Intertie is over requested, the requests for Remaining Import Capability on that Intertie will be assigned based on each Load Serving Entity's Import Capability Load Share Ratio in the same manner as set forth in Step 4. A Market Participant without an Import Capability Load Share will be assigned the Import Capability Load Share equal to the average Import Capability Load Share of those Load Serving Entities from which it received transfers of Remaining Import Capability.

Step 10: <u>CAISO Notification of Initial Remaining Import Capability Assignments and Unassigned</u>

<u>Capability</u>: In accordance with the schedule set forth in the Business Practice Manual, the CAISO will:

- (a) Notify the Scheduling Coordinator for each Load Serving Entity or Market Participant of the Load Serving Entity or Market Participant's accepted request(s) for assigning Remaining Import Capability under Step 9; and
- (b) Publish on the CAISO Website aggregate unassigned Available Import

 Capability, if any, the identity of the Interties with unassigned Available Import

 Capability, and the MW quantity of Available Import Capability, on each such

 Intertie.

Step 11: Secondary Scheduling Coordinator Request to Assign Remaining Import Capability by

Intertie: To the extent Remaining Import Capability remains unassigned as disclosed by Step 10, in
accordance with the schedule set forth in the Business Practice Manual, Scheduling Coordinators for
Load Serving Entities or Market Participants shall notify the CAISO of their requests to assign any
remaining Remaining Import Capability on a MW per available Intertie basis. The CAISO will honor
the requests to the extent an Intertie has not been over requested. If an Intertie is over requested,
the requests on that Intertie will be assigned based on each Load Serving Entity or Market
Participant's Import Capability Load Share Ratio, as used in Steps 4 and 9.

Step 12: Notification of Secondary Remaining Import Capability Assignments and Unassigned

Capability: In accordance with the schedule set forth in the Business Practice Manual, the CAISO will:

- (a) Notify the Scheduling Coordinator for each Load Serving Entity or Market Participant of the Load Serving Entity or Market Participant's accepted request(s) for assigning Remaining Import Capability under Step 11; and
- (b) Publish on the CAISO Website unassigned aggregate Available Import

 Capability, if any, the identity of the Interties with Available Remaining Import

 Capability, and the MW quantity of Availability Import Capability on each such

 Intertie.

Step 13: Requests for Balance of Year Unassigned Available Import Capability: To the extent total Available Import Capability remains unassigned as disclosed by Step 12, Scheduling Coordinators for Load Serving Entities or Market Participants may notify the CAISO at any time, except as limited herein, of a request for unassigned Available Import Capability on a specific Intertie on a per MW basis. Each request must include the identity of Load Serving Entity or Market Participant on whose behalf the request is made. The CAISO will accept only two (2) requests per calendar week from any

Scheduling Coordinator on behalf of a single Load Serving Entity or other Market Participant. The CAISO will honor requests in priority of the time requests from Scheduling Coordinators were received until the Intertie is fully assigned and without regard to any Load Serving Entity's Load Share Quantity. Any honored request shall be for the remainder of the Resource Adequacy Compliance Year; however, any notification by the CAISO of acceptance of the request in accordance with this Section after the 20th calendar day of any month shall not be permitted to be included in the Load Serving Entity's Resource Adequacy Plan submitted in the same month as the acceptance. The CAISO shall provide an electronic means, either through the Import Capability Transfer Registration Process or otherwise, of notifying the Scheduling Coordinator of the time the request was deemed received by the CAISO and, within seven (7) days of receipt of the request, whether the request was honored. If honored, it shall be the responsibility of the Scheduling Coordinator and its Load Serving Entity to notify the CPUC or applicable Local Regulatory Authority of the acceptance of the request for unassigned Available Import Capability. If the request is not honored because the Intertie requested was fully assigned, the request will be deemed rejected and the Scheduling Coordinator, if it still seeks to obtain unassigned Available Import Capability, will be required to submit a new request for unassigned Available Import Capability on a different Intertie. The CAISO will update on its website the list of unassigned Available Import Capability by Intertie in accordance with the schedule set forth in the Business Practice Manual.

This multi-step process for assignment of Total Import Capability does not guarantee or result in any actual transmission service being assigned and is only used for determining the import capability that can be credited towards satisfying the Reserve Margin of a Load Serving Entity under this Section 40. Upon the request of the CAISO, Scheduling Coordinators must provide the CAISO with information on Pre-RA Import Commitments and any transfers or sales of assigned Total Import Capability.

40.4.6.2.2 Bilateral Import Capability Transfers and Registration Process.

40.4.6.2.2.1 Eligibility Registration for Bilaterial Import Capability Transfers.

To be eligible to engage in any bilateral assignment, sale, or other transfer of Remaining Import
Capability under Step 8 of Section 40.4.6.2.1 or Section 40.4.6.2.2.2 or Existing Contract Import
Capability, and Pre-RA Import Commitment Capability under Section 40.6.2.2.2, a Load Serving Entity or
other Market Participant must provide the CAISO through the Import Capability Transfer Registration
Process the following information:

(a) Name of the Load Serving Entity or Market Participant

(b) E-mail contact information

The CAISO will post to the CAISO Website the information received under this Section on a monthly basis in accordance with the schedule set forth in the Business Practice Manual. Any assignment, sale, or other transfer of Existing Contract Import Capability, Pre-RA Import Commitment Capability, or Remaining Import Capability may only be made by or to a Load Serving Entity or Market Participant whose information received under this Section has been posted to the CAISO Website prior to the date of the assignment, sale, or other transfer of the Existing Contract Import Capability, Pre-RA Import Commitment Capability, or Remaining Import Capability. It shall be the exclusive responsibility of the Scheduling Coordinator for the Load Serving Entity or Market Participant to ensure that the information posted to the CAISO Website under this Section is accurate and up to date.

40.4.6.2.2.2 Reporting Process for Bilateral Import Capability Transfers.

This Section shall apply to all transfers of Existing Contract Import Capability, Pre-RA Import Commitment Capability, or Remaining Import Capability other than that provided for in Step 8 of Section 40.4.6.2.1.

Any Load Serving Entity or other Market Participant that has obtained Existing Contract Import Capability, Pre-RA Import Commitment Capability, or Remaining Import Capability may assign, sell, or otherwise transfer such Existing Contract Import Capability, Pre-RA Import Commitment Capability, or Remaining Import Capability in MW increments. The import capability subject to each transfer shall remain on the Intertie assigned pursuant to Section 40.4.6.2.1.

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The Scheduling Coordinator for the Load Serving Entity or Market Participant receiving the transferred

Existing Contract Import Capability, Pre-RA Import Commitment Capability, or Remaining Import

Capability must report the transfer to the CAISO through the CAISO's Import Capability Transfer

Registration Process by providing the following information:

(a) Identity of the counter-party(ies);

(b) The MW quantity;

(c) The Intertie on which the Existing Contract Import Capability, Pre-RA Import

Commitment Capability, or Remaining Import Capability was assigned;

(d) Term of the transfer;

(e) Price on a per MW basis; and

(f) Whether the import capability assignment being transferred is Existing Contract

Import Capability, Pre-RA Import Commitment Capability, or Remaining Import

Capability.

The CAISO will promptly post to the CAISO Website the information on transfers received under this

Section except for the information received pursuant to subpart (f) of this Section. On a quarterly basis,

the CAISO shall also report to FERC the transfer information received under this Section and Step 8 of

Section 40.4.6.2.1. Transfer information received in accordance with this Section after the 20th calendar

day of any month shall not be permitted to be included in the Load Serving Entity's Resource Adequacy

Plan submitted in the same month as the transfer submission.

40.4.6.2.2.3 Other Import Capability Information Postings.

The CAISO will post to the CAISO Website on a monthly basis in accordance with the schedule set forth

in the Business Practice Manual, for each Intertie, the holder and that holder's quantity in MW of import

capability assigned on the particular Intertie as of the reporting date.

The CAISO will also post to the CAISO Website following submission of the annual Resource Adequacy

Plans under Sections 40.2.1.1, 40.2.2.4, 40.2.3.4, and 40.2.4, for each Intertie, by a "yes" or "no"

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designation, whether each holder of import capability assigned on the particular Intertie has fully included the assigned import capability in the holder's annual Resource Adequacy Plans.

40.4.7 Submission of Supply Plans.

Scheduling Coordinators representing Resource Adequacy Resources supplying Resource Adequacy Capacity shall provide the CAISO with annual and monthly Supply Plans, on the schedule set forth in the Business Practice Manual verifying their agreement to provide Resource Adequacy Capacity during the next Resource Adequacy Compliance Year or relevant month, as applicable. The Supply Plan must be in the form of the template provided on the CAISO Website, which shall include an affirmative representation by the Scheduling Coordinator submitting the Supply Plan that the CAISO is entitled to rely on the accuracy of the information provided in the Supply Plan to perform those functions set forth in this Section 40. The CAISO shall be entitled to take reasonable measures to validate the accuracy of the information submitted in Supply Plans under this Section.

40.5 Requirements Applicable to Modified Reserve Sharing LSEs Only.

40.5.1 Day Ahead Scheduling and Bidding Requirements.

Load within the CAISO Balancing Authority Area for whom they submit Demand
Bids shall submit into the IFM a Self-Schedule or Bid equal to 115% of the hourly
Demand Forecasts for each Modified Reserve Sharing LSE it represents for each
Trading Hour for the next Trading Day. Subject to Section 40.5.5, the resources
included in a Self-Schedule or a Bid in each Trading Hour to satisfy 115% of the
Modified Reserve Sharing LSE's hourly Demand Forecasts will be deemed
Resource Adequacy Resources and (a) shall be those resources listed in the
Modified Reserve Sharing LSE's monthly Resource Adequacy Plan and (b) shall
include all Local Capacity Area Resources listed in the Modified Reserve Sharing
LSE's annual Resource Adequacy Plan, if any, except to the extent the Local
Capacity Area Resources, if any, are unavailable due to any

Outages or reductions in capacity reported to the CAISO in accordance with this CAISO Tariff.

- (i) A Local Capacity Area Resource that has not fully submitted a Bid or Self-Schedule for all of its Resource Adequacy Capacity will be subject to the CAISO's optimization for the remainder of its capacity, which must be Bid into the Day-Ahead Market; however, to the extent the Generating Unit providing Local Capacity Area Resource capacity constitutes a Use-Limited Resource under Section 40.6.4, the provisions of Section 40.6.4 will apply.
- (ii) If the Resource Adequacy Resource submits a Bid for Ancillary Services, the Energy Bid associated with the Bid for Ancillary Services will be optimized by the CAISO. However, pursuant to Section 8.6.2, to the extent the Local Capacity Area Resource self-provides Ancillary Services and local Constraints result is in a solution in the MPM-RRD that involves Load reduction, then Self-Provided AS from the Local Capacity Area Resource will be converted into Ancillary Service Bids at the minimum Bid price for Ancillary Services as prescribed in Section 39.6.1.5.
- (iii) Resource Adequacy Resources must participate in the RUC to the extent that the resource has not submitted a Self-Schedule or already committed to provide Energy or capacity in the IFM. Resource Adequacy Resources will be required to offer into RUC and will be considered based on a \$0 RUC Availability Bid.
- (iv) Capacity from Resource Adequacy Resources selected in RUC will not be eligible to receive a RUC Availability Payment.
- (2) Resource Adequacy Resources of Modified Reserve Sharing LSEs that do not clear in the IFM or are not committed in RUC shall have no further offer

- requirements in HASP or Real-Time, except under System Emergencies as provided in this CAISO Tariff.
- (3) Resource Adequacy Resources committed by the CAISO must maintain that commitment through Real-Time. In the event of a Forced Outage on a Resource Adequacy Resource committed in the Day-Ahead Market to provide Energy, the Scheduling Coordinator for the Modified Reserve Sharing LSE will have up to the next HASP bidding opportunity, plus one hour, to replace the lesser of: (i) the committed resource suffering the Forced Outage, (ii) the quantity of Energy committed in the Day-Ahead Market, or (iii) 107% of the hourly forecast Demand.

40.5.2 Demand Forecast Accuracy.

On a monthly basis, the CAISO will review Meter Data to evaluate the accuracy or quality of the hourly Day-Ahead Demand Forecasts submitted by the Scheduling Coordinator on behalf of Modified Reserve Sharing LSEs. If the CAISO determines, based on its review, that one or more Demand Forecasts materially under-forecasts the Demand of the Modified Reserve Sharing LSEs for whom the Scheduling Coordinator schedules, after accounting for weather adjustments, the CAISO will notify the Scheduling Coordinator of the deficiency and will cooperate with the Scheduling Coordinator and Modified Reserve Sharing LSE(s) to revise its Demand Forecast protocols or criteria. If the material deficiency affects ten (10) hourly Demand Forecasts over a minimum of two (2) non-consecutive Business Days within a month, the CAISO may: (i) inform State of California authorities including, but not necessarily limited to the California Legislature, and identify the Modified Reserve Sharing LSE(s) represented by the Scheduling Coordinator and (ii) assign to the Scheduling Coordinator responsibility for all tier 1 RUC charges as specified in Section 11.8.6.5 to address the uncertainty caused by the Scheduling Coordinator's deficient hourly Demand Forecasts until the deficiency is addressed.

40.5.3 Requirement to Make Resources Available During System Emergencies.

Scheduling Coordinators for Modified Reserve Sharing LSEs that are MSS Operators shall make resources available to the CAISO during a System Emergency in accordance with the provisions of their Metered Subsystem Agreement. Scheduling Coordinators for all other Modified Reserve Sharing LSEs

shall make available to the CAISO upon a warning or emergency notice of an actual or imminent System Emergency all resources that have not submitted a Self-Schedule or Economic Bid in the IFM that were listed in the Modified Reserve Sharing LSE's monthly Resource Adequacy Plan that are physically capable of operating without violation of any applicable law.

40.5.4 Consequence of Failure to Meet Scheduling Obligation.

- (1) If the Scheduling Coordinator for the Modified Reserve Sharing LSE fails to submit a Self-Schedule or submit Bids equal to 115% of its hourly Demand Forecasts for each Trading Hour for the next Trading Day in the IFM and RUC, the Scheduling Coordinator will be charged a capacity surcharge of three times the price of the relevant Day-Ahead Hourly LAP LMP in the amount of the shortfall. To the extent the Scheduling Coordinator for the Modified Reserve Sharing LSE schedules imports on one or more Scheduling Points in an aggregate megawatt amount greater than its aggregate import deliverability allocation under Section 40.4.6.2, the quantity of megawatts in excess of its import deliverability allocation will not count toward satisfying the Modified Reserve Sharing LSE's scheduling obligation, unless it clears the Day-Ahead Market.
- If the Scheduling Coordinator for the Modified Reserve Sharing LSE cannot fulfill its obligations under Section 40.5.1(3), the Scheduling Coordinator for the Modified Reserve Sharing LSE will be charged a capacity surcharge of two times the average of the six (6) Settlement Interval LAP prices for the hour in the amount of the shortfall. Energy scheduled in the HASP will not net against, or be used as a credit to correct, any failure to fulfill the Day-Ahead IFM hourly scheduling and RUC obligation in Section 40.5.1(1).
- (3) Any Energy surcharge received by the CAISO pursuant to this Section 40.5.4 shall be allocated to Scheduling Coordinators representing other Load Serving

Entities in proportion to each such Scheduling Coordinator's Measured Demand during the relevant Trading Hour(s) to the aggregate CAISO Measured Demand during the relevant Trading Hour(s).

40.5.5 Substitution of Resources.

Subject to the provisions of this Section 40.5, the Scheduling Coordinator for a Modified Reserve Sharing LSE may substitute for its Resource Adequacy Resources listed in its monthly Resource Adequacy Plan provided:

- (1) Substitutions must occur no later than the close of the IFM; and
- (2) Resources eligible for substitution are either imports or capacity from non-Resource Adequacy Resources or Resource Adequacy Resources with additional available capacity defined as Net Qualifying Capacity in excess of previously sold Resource Adequacy Capacity; however a Local Capacity Area Resource may be substituted only with capacity from non-Resource Adequacy Resources located in the same Local Capacity Area.

40.6 Requirements Applicable to Scheduling Coordinators for Reserve Sharing LSEs and Resources Providing Resource Adequacy Capacity to Reserve Sharing LSEs.

This Section 40.6 does not apply to Resource Adequacy Resources of Load following MSSs and those entities that participate in the Modified Reserve Sharing LSE program under Section 40.5. Scheduling Coordinators supplying Resource Adequacy Capacity shall make the Resource Adequacy Capacity listed in the Scheduling Coordinator's monthly Supply Plans under Section 40.4.7 available to the CAISO each hour of each day of the reporting month in accordance with this Section 40.6.

40.6.1 Day-Ahead Availability.

Scheduling Coordinators supplying Resource Adequacy Capacity shall make the Resource Adequacy Capacity, except for that subject to Section 40.6.4, available Day-Ahead to the CAISO as follows:

(1) Resource Adequacy Resources physically capable of operating must submit Economic Bids or Self-Schedules for their Resource Adequacy Capacity into the IFM and RUC.

- (2) Resource Adequacy Resources that are Extremely Long-Start Resources must make themselves available to the CAISO by complying with the Extremely Long-Start Commitment Process under Section 31.7 or otherwise committing the ELS Resource upon instruction from the CAISO, if physically capable.
- (3) Resource Adequacy Resources must be available except for limitations specified in the Master File, legal or regulatory prohibitions or as otherwise required by this CAISO Tariff or by Good Utility Practice.
- (4) Resource Adequacy Resources that do not submit Self-Schedules or Economic Bids reflecting all of their Resource Adequacy Capacity will be subject to the CAISO's optimization for the remainder of their Resource Adequacy Capacity Bids into the Day-Ahead Market. If the Resource Adequacy Resource submits a Bid for Ancillary Service(s), the Energy Bid associated with the Bid for Ancillary Services will be optimized by the CAISO.
- (5) Resource Adequacy Resources must participate in the RUC to the extent that the resource has available Resource Adequacy Capacity that is not reflected in a Self-Schedule is already committed to provide Energy or capacity in the IFM.
 Resource Adequacy Resources will be subject to RUC and will be optimized at a zero dollar RUC Availability Bid.
- (6) Capacity from Resource Adequacy Resources selected in RUC will not be eligible to receive a RUC Availability Payment.

40.6.2 Real-Time Availability.

Resource Adequacy Resources that have been committed by the CAISO in the Day-Ahead Market or the RUC for part of their Resource Adequacy Capacity or have submitted a Self-Schedule for part of their Resource Adequacy Capacity must remain available to the CAISO through Real-Time, including capacity reflected in the Day-Ahead Schedule and any remaining capacity, for the scheduled and non-scheduled portions of their Resource Adequacy Capacity, subject to the provisions of Section 40.6.4.

40.6.3 Additional Availability Requirements for Short Start Units and Dynamic System Resources.

Short Start Units and Dynamic System Resources, unless a Dynamic System Resource is demonstrated to be incapable of meeting the definition of a Short Start Unit based on physical operating characteristics, that supply Resource Adequacy Capacity not committed under Section 40.6.1, and therefore are subject to Section 40.6.2, and Use–Limited Resources subject to Section 40.6.4 to the extent consistent with their applicable use plan, must submit Economic Bids or Self-Schedules for the Resource Adequacy Capacity into the Real-Time Market.

The CAISO may waive these availability obligations for Short Start Units and Dynamic System Resources that have not submitted a Self-Schedule or otherwise been selected in the IFM or RUC based on the procedure to be published on the CAISO Website.

40.6.4 Additional Availability Requirements for Use-Limited Resources.

40.6.4.1 Registration of Use-Limited Resources.

Scheduling Coordinators for Use-Limited Resources, other than for hydroelectric Generating Units and Participating Load, including Pumping Load, must provide the CAISO an application in the form specified on the CAISO Website requesting registration of a specifically identified resource as a Use-Limited Resource. This application shall include specific operating data and supporting documentation including, but not limited to;

- (1) a detailed explanation of why the resource is subject to operating limitations;
- (2) historical data to show attainable MWhs for each 24-hour period during the preceding year, including, as applicable, environmental restrictions for NOx, SOx, or other factors; and
- (3) further data or other information as may be requested by the CAISO to understand the operating characteristics of the unit.

Within five (5) Business Days after receipt of the application, the CAISO will respond to the Scheduling Coordinator as to whether or not the CAISO agrees that the facility is eligible to be a Use-Limited

Resource. If the CAISO determines the facility is not a Use-Limited Resource, the Scheduling Coordinator may challenge that determination in accordance with the CAISO ADR Procedures.

40.6.4.2 Use Plan.

The Scheduling Coordinator shall provide for the following Resource Adequacy Compliance Year a proposed annual use plan for each Use-Limited Resource that is a Resource Adequacy Resource. The proposed annual use plan will delineate on a month-by-month basis the total MWhs of Generation, total run hours, expected daily supply capability (if greater than four hours) and the daily Energy limit, operating constraints, and the timeframe for each constraint. The CAISO will have an opportunity to discuss the proposed annual use plan with the Scheduling Coordinator and suggest potential revisions to meet reliability needs of the system. The Scheduling Coordinator shall then submit its final annual use plan. Scheduling Coordinators for Use-Limited Resources must submit the proposed and final annual use plans in accordance with the schedule set forth in the Business Practice Manual. The Scheduling Coordinator will be able to update the projections made in the annual use plan in the monthly Resource Adequacy Plans. Hydroelectric Generating Units and Pumping Load will be able to update use plans intra-monthly as necessary to reflect evolving hydrological and meteorological conditions. The annual use plan must reflect the potential operation of the Use-Limited Resource at a level no less than the minimum criteria set forth by the Local Regulatory Authority for qualification of the resource.

40.6.4.3 Bidding Requirements on Use-Limited Resources.

40.6.4.3.1 Non-Hydro and Dispatchable Use-Limited Resources.

Use-Limited Resources, other than those subject to the provisions of 40.6.4.3.2, must submit a Supply Bid or Self-Schedule for their Resource Adequacy Capacity in the Day-Ahead Market whenever the Use-Limited Resources are physically capable of operating in accordance with their operating criteria, including environmental or other regulatory requirements. Use-Limited Resources will also provide a daily Energy limit as part of their Day-Ahead Market offer to enable the CAISO to schedule them for the period in which they are capable of providing the Energy. To the extent that the daily Energy limit has been reached through Self-Schedules, no further action will be taken by the CAISO, unless rescheduling of the Energy is necessary for System Reliability. Use-Limited Resources will attempt to reschedule the Energy

in recognition of the System Reliability concern, to the extent that the change is possible without violating a Use-Limited Resource's operating criteria.

40.6.4.3.2 Hydro and Non-Dispatchable Use-Limited Resources.

Hydroelectric Generating Units, Pumping Load, and Non-Dispatchable Use-Limited Resources shall submit Self-Schedules or Bids in the Day-Ahead Market for their expected available Energy or their expected as-available Energy, as applicable, in the Day-Ahead Market and HASP. Such resources shall also revise their Self-Schedules or submit additional Bids in HASP based on the most current information available regarding expected Energy deliveries. Hydroelectric Generating Units, Pumping Load, and Non-Dispatchable Use-Limited Resources will not be subject to commitment in the RUC process. The CAISO will retain discretion as to whether a particular resource should be considered a Non-Dispatchable Use-Limited Resource, and this decision will be made in accordance with the provisions of Section 40.6.4.1.

40.6.4.3.3 Availability of Use-Limited Resources During System Emergencies.

All Use-Limited Resources remain subject to Section 7.7.2.3 regarding System Emergencies to the extent the Use-Limited Resource is owned or controlled by a Participating Generator.

40.6.4.3.4 Availability of Intermittent Resources.

Any Eligible Intermittent Resource that provides Resource Adequacy Capacity may, but is not required to, submit Bids in the Day-Ahead Market.

40.6.5 Additional Availability Requirements for System Resources.

In the IFM, the multi-hour block constraints of a System Resource, other than a System Resource capable of submitting a Dynamic Schedule, are honored in the optimization. Multi-hour block System Resources that are not capable of submitting a Dynamic Schedule and are Resource Adequacy Resources must be capable of hourly selection by the CAISO in RUC if not fully committed in the IFM. If selected in the RUC, the System Resource must be dispatchable in those hours in the HASP and Real Time Market. For existing System Resources with a call-option that expires prior to the completion of the IFM, such System Resources listed on a Resource Adequacy Plan must be reported to the CAISO for consideration in the Extremely Long-Start Commitment Process.

40.6.5.1 Additional Availability Requirements for Dynamic Resource-Specific System Resources.

A Dynamic Resource-Specific System Resource that supplies Resource Adequacy Capacity, and is not otherwise a Use-Limited Resource under Section 40.6.4, will be subject to either Section 40.6.3 as a Short Start Unit or Section 40.6.7 as a Long Start Unit based upon the Dynamic Resource-Specific System Resource's registered physical operating characteristics.

40.6.6 Availability Requirements for Partial Resource Adequacy Resources.

Only that output of a Partial Resource Adequacy Resource that is designated by a Scheduling Coordinator as Resource Adequacy Capacity in its monthly or annual Supply Plan shall have an availability obligation to the CAISO. Exports being supported by non-Resource Adequacy Capacity from a Partial Resource Adequacy Resource that becomes unavailable or unusable shall be considered as an export of non-Resource Adequacy Capacity based on the pro-rata allocation of derated capacity of the Partial Resource Adequacy Resource as follows:

- (a) Resource Adequacy Capacity [(Resource Adequacy Capacity/PMax Capacity of Resource Adequacy Resource) x MW Derate or Outage]; or
- (b) [1- (Resource Adequacy Capacity/PMax Capacity of Resource Adequacy Resource)] x De-rated PMax].

40.6.7 Availability Requirements for Long Start Units.

40.6.7.1 Release of Long Start Units.

Long Start Units not committed in the Day-Ahead Market will be released from any further obligation to submit Self-Schedules or Bids for the relevant Operating Day. Scheduling Coordinators for Long Start Units are not precluded from self-committing the unit after the Day-Ahead Market and submitting a Self-Schedule for Wheeling-Out in the HASP, unless precluded by terms of their contracts.

40.6.7.2 Obligation of Long Start Units to Offer Remaining Capacity in Real-Time.

Long Start Units that have been committed by the CAISO in the Day-Ahead Market or the RUC for part of their Resource Adequacy Capacity or have submitted a Self-Schedule for part of their Resource

Adequacy Capacity must remain available to the CAISO through Real-Time for the full value of their Resource Adequacy Capacity.

40.6.8 Use of Default Energy Bids.

Prior to completion of the Day-Ahead Market, the CAISO will determine if dispatchable Resource Adequacy Capacity from Resource Adequacy Resources has not been reflected in a Bid and will insert a Default Energy Bid for any dispatchable Resource Adequacy Capacity that is not reflected in a Bid into the CAISO Day-Ahead Market and for which the CAISO has not received notification of an Outage. In addition, the CAISO will determine if all dispatchable Resource Adequacy Capacity from Short Start Units, not otherwise selected in the IFM or RUC, is reflected in a Bid into the HASP and will insert a Default Energy Bid for any remaining dispatchable Resource Adequacy Capacity for which the CAISO has not received notification of an Outage.

40.6.9 Availability Requirements for Grandfathered Firm Liquidated Damages Contracts.

Resource Adequacy Capacity represented by a Firm Liquidated Damages Contract and relied upon by a Scheduling Coordinator in a monthly or annual Resource Adequacy Plan shall be submitted as a Self-Schedule or Bid in the Day-Ahead IFM to the extent such scheduling right exists under the Firm Liquidated Damages Contract.

40.6.10 Exports of Energy from Resource Adequacy Capacity.

Resource Adequacy Capacity may be utilized to serve an Export Bid. An Export Bid may be submitted into the CAISO Markets and be cleared by the Energy being provided by Resource Adequacy Capacity.

40.6.11 Curtailment of Exports in Emergency Situations.

At its sole discretion, the CAISO may curtail exports from Resource Adequacy Capacity to prevent or alleviate a System Emergency. An Export Bid or a Self-Schedule to provide exports included in a binding Schedule accepted in the IFM or HASP will not be distinguished from a Demand Bid or Self-Schedule to serve Load within the CAISO Balancing Authority Area included in a binding Schedule accepted in the IFM or HASP for purposes of curtailment under this Section, except as consistent with Good Utility Practice.

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40.6.12 Participating Loads.

Participating Loads included in a Resource Adequacy Plan and Supply Plan, if the Scheduling Coordinator for the Participating Loads is not the same as that for the Load Serving Entity, will be dispatched by the CAISO in accordance with the terms and conditions established by the CPUC or the Local Regulatory Authority.

40.7 Compliance.

The CAISO will evaluate whether each annual and monthly Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of a Load Serving Entity demonstrates Resource Adequacy Capacity sufficient to satisfy the Load Serving Entity's (i) allocated responsibility for Local Capacity Area Resources under Section 40.3.2 and (ii) applicable Demand and Reserve Margin requirements. If the CAISO determines that a Resource Adequacy Plan does not demonstrate Local Capacity Area Resources sufficient to meet its allocated responsibility under Section 40.3.2, compliance with applicable Demand and Reserve Margin requirements, or compliance with any other resource adequacy requirement in this Section 40 or adopted by the CPUC, Local Regulatory Authority, or federal agency, as applicable, the CAISO will notify the relevant Scheduling Coordinator, CPUC, Local Regulatory Authority, or federal agency with jurisdiction over the relevant Load Serving Entity, or in the case of a mismatch between Resource Adequacy Plan(s) and Supply Plan(s), the relevant Scheduling Coordinators, in an attempt to resolve any deficiency in accordance with the procedures set forth in the Business Practice Manual. The notification will include the reasons the CAISO believes a deficiency exists. If the deficiency relates to the demonstration of Local Capacity Area Resources in a Load Serving Entity's annual Resource Adequacy Plan, and the CAISO does not provide a written notice of resolution of the deficiency as set forth in the Business Practice Manual, the Scheduling Coordinator for the Load Serving Entity may demonstrate that the identified deficiency is cured by submitting a revised annual Resource Adequacy Plan within thirty (30) days of the beginning of the Resource Adequacy Compliance Year. For all other identified

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deficiencies, at least ten (10) days prior the effective month of the relevant Resource Adequacy Plan, the Scheduling Coordinator for the Load Serving Entity shall (i) demonstrate that the identified deficiency is cured by submitting a revised Resource Adequacy Plan or (ii) advise the CAISO that the CPUC, Local Regulatory Authority, or federal agency, as appropriate, has determined that no deficiency exists. In the case of a mismatch between Resource Adequacy Plan(s) and Supply Plan(s), if resolved, the relevant Scheduling Coordinator(s) must provide the CAISO with revised Resource Adequacy Plan(s) or Supply Plans, as applicable, at least ten (10) days prior to the effective month. If the CAISO is not advised that the deficiency or mismatch is resolved at least ten (10) days prior to the effective month, the CAISO will use the information contained in the Supply Plan to set the obligations of Resource Adequacy Resources under this Section 40 and/or to assign any costs incurred under this Section 40.

40.7.1 Other Compliance Issues.

Scheduling Coordinators representing Generating Units, System Units or System Resources supplying Resource Adequacy Capacity that fail to provide the CAISO with an annual or monthly Supply Plan, as applicable, as set forth in Section 40.7, shall be subject to Section 37.6.1. Further, Scheduling Coordinators representing Generating Units, System Units or System Resources supplying Resource Adequacy Capacity that fail to provide the CAISO with information required for the CAISO to determine Net Qualifying Capacity shall not be eligible for inclusion in the Net Qualifying Capacity annual report under Section 40.4.2 for the next Resource Adequacy Compliance Year and may be subject to Sanctions under Section 37.6.1.

40.7.2 Penalties for Non-Compliance.

The failure of a Resource Adequacy Resource or Resource Adequacy Capacity to be available to the CAISO in accordance with the requirements of this Section 40 and the failure to operate a Resource Adequacy Resource by placing it online or in a manner consistent with a submitted Bid or Default Energy Bid shall be subject to the Sanctions set forth in Section 37.2. However, any failure of the Resource Adequacy Resource to satisfy any obligations prescribed under this Section 40 during a Resource

Adequacy Compliance Year for which Resource Adequacy Capacity has been committed to a Load Serving Entity shall not limit in any way, except as otherwise established under Section 40.4.5 or requirements of the CPUC, Local Regulatory Authority, or federal agency, as applicable, the ability of the Load Serving Entity to whom the Resource Adequacy Capacity has been committed to use such Resource Adequacy Capacity for purposes of satisfying the resource adequacy requirements of the CPUC, Local Regulatory Authority, or federal agency, as applicable. In addition, a Reserve Sharing LSE shall not be subject to any sanctions, penalties, or other compensatory obligations under this Section 40 on account of a Resource Adequacy Resource's satisfaction or failure to satisfy its obligations under this Section 40.

40.8 CAISO Default Qualifying Capacity Criteria.

40.8.1 Applicability.

The criteria in this Section 40.8 shall apply only: (i) where the CPUC or Local Regulatory Authority has not established and provided to the CAISO criteria to determine the types of resources that may be eligible to provide Qualifying Capacity and for calculating Qualifying Capacity for such eligible resource types and (ii) until the CAISO has been notified in writing by the CPUC of its intent to overturn, reject or fundamentally modify the capacity-based framework in CPUC Decisions 04-01-050 (Jan. 10, 2004), 04-10-035 (Oct. 28, 2004), and 05-10-042 (Oct. 31, 2005). The types of resources specified in this Section 40.8.1 will be eligible to provide Qualifying Capacity to the extent they meet the criteria for each type of resource set forth in this Section 40.8.1.

40.8.1.2 Nuclear and Thermal.

Nuclear and thermal Generating Units, other than Qualifying Facilities with effective contracts under the Public Utility Regulatory Policies Act addressed in Section 40.8.1.8 below, must be a Participating Generator or a System Unit. The Qualifying Capacity of nuclear and thermal units, other than Qualifying Facilities addressed in Section 40.8.1.8, will be based on net dependable capacity defined by NERC Generating Availability Data System information.

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40.8.1.3 Hydro.

Hydroelectric Generating Units, other than Qualifying Facilities with contracts under the Public Utility Regulatory Policies Act, must be either Participating Generators or System Units. The Qualifying Capacity of a pond or Pumped-Storage Hydro Unit, other than a QF, will be determined based on net dependable capacity defined by NERC GADS minus variable head derate based on an average dry year reservoir level. The Qualifying Capacity of a pond or Pumped-Storage Hydro Unit that is a QF will be determined based on historic performance during the hours of noon to 6:00 p.m., using a three-year rolling average.

The Qualifying Capacity of all run-of-river hydro units, including Qualifying Facilities, will be based on net dependable capacity defined by NERC GADS minus an average dry year conveyance flow, stream flow, or canal head derate. As used in this section, average dry year reflects a one-in-five year dry hydro scenario (for example, using the 4th driest year from the last 20 years on record).

40.8.1.4 Unit-Specific Contracts.

Unit-specific contracts with Participating Generators or System Units will qualify as Resource Adequacy Capacity subject to the verification that the total MW quantity of all contracts from a specific unit do not exceed the total Net Qualifying Capacity (MW) consistent with the Net Qualifying Capacity determination for that unit.

40.8.1.5 Contracts with Liquidated Damage Provisions.

Firm Energy contracts with liquidated damages provisions, as generally reflected in Service Schedule C of the Western Systems Power Pool Agreement or the Firm LD product of the Edison Electric Institute pro forma agreement, or any other similar firm Energy contract that does not require the seller to source the Energy from a particular unit, and specifies a delivery point internal to the CAISO Balancing Authority Area entered into before October 27, 2005 shall be eligible to count as Qualifying Capacity until the end of 2008. A Scheduling Coordinator, however, cannot have more than twenty-five percent 25% of its portfolio of Qualifying Capacity met by contracts with liquidated damage provisions for 2008.

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40.8.1.6 Wind and Solar.

As used in this Section, wind units are those wind Generating Units without backup sources of Generation and solar units are those solar Generating Units without backup sources of Generation. Wind and solar units, other than Qualifying Facilities with effective contracts under the Public Utility Regulatory Policies Act, must be Participating Intermittent Resources or subject to availability provisions of Section 40.6.4.3.4.

The Qualifying Capacity of all wind or solar units, including Qualifying Facilities, for each month will be based on their monthly historic performance during that same month during the hours of noon to 6:00 p.m., using a three-year rolling average. For wind or solar units with less than three years operating history, all months for which there is no historic performance data will utilize the monthly average production factor of all units (wind or solar, as applicable) within the TAC Area in which the Generating Unit is located.

40.8.1.7 **Geothermal.**

Geothermal Generating Units, other than Qualifying Facilities addressed in Section 40.8.1.8, must be Participating Generators or System Units. The Qualifying Capacity of geothermal units, other than Qualifying Facilities addressed in Section 40.8.1.8, will be based on NERC GADS net dependable capacity minus a derate for steam field degradation.

40.8.1.8 Treatment of Qualifying Capacity for Qualifying Facilities.

Qualifying Facilities must be subject to an effective Participating Generator Agreement or QF Participating Generator Agreement or must be System Units, unless they have a PURPA contract. Except for hydro, wind, and solar Qualifying Facilities addressed pursuant to Sections 40.8.1.3 and 40.8.1.6, the Qualifying Capacity of Qualifying Facilities under PURPA contracts, will be based on historic monthly Generation output during the hours of noon to 6:00 p.m. (net of Self-provided Load) during a three-year rolling average.

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40.8.1.9 Participating Loads.

The Qualifying Capacity of Participating Loads shall be the average reduction in Demand over a three-year period on a per Dispatch basis or, if the Load does not have three years of performance history, based on comparable evaluation data using similar programs. Loads of Participating Loads must be available at least 48 hours, and if the Loads can only be dispatched for a maximum of two hours per event, then only 0.89 percent of a Scheduling Coordinator's portfolio may be made up of such Loads.

40.8.1.10 Jointly-Owned Facilities.

A jointly-owned facility must be either a Participating Generator or a System Unit. The Qualifying Capacity for the entire facility will be determined based on the type of resource as described elsewhere in this Section 40.8.1. In addition, the Scheduling Coordinator must provide the CAISO with a demonstration of its entitlement to the output of the jointly-owned facility's Qualified Capacity and an explanation of how that entitlement may change if the facility's output is restricted.

40.8.1.11 Facilities under Construction.

The Qualifying Capacity for facilities under construction will be determined based on the type of resource as described elsewhere in this Section 40.8. In addition, the facility must have been in commercial operation for no less than one month to be eligible to be included as a Resource Adequacy Resource in a Scheduling Coordinator's monthly Resource Adequacy Plan.

40.8.1.12 System Resources.

40.8.1.12.1 Dynamic System Resources.

Dynamic System Resources shall be treated similar to resources within the CAISO Balancing Authority

Area, except with respect to the deliverability screen under Section 40.4.6.1. However, eligibility as a

Resource Adequacy Resource is contingent upon a showing by the Scheduling Coordinator that the

Dynamic System Resource has secured transmission through any intervening Balancing Authority Areas

for the Operating Hours that cannot be curtailed for economic reasons or bumped by higher priority

transmission and that the Load Serving Entity for which the Scheduling Coordinator is submitting Demand

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Bids has an allocation of import capacity at the import Scheduling Point under Section 40.4.6.2 that is not less than the Resource Adequacy Capacity provided by the Dynamic System Resource.

40.8.1.12.2 Non-Dynamic System Resources.

For Non-Dynamic System Resources, the Scheduling Coordinator must demonstrate that the Load Serving Entity for which the Scheduling Coordinator is scheduling Demand has an allocation of import capacity at the import Scheduling Point under Section 40.4.6.2 that is not less than the Resource Adequacy Capacity from the Non-Dynamic System Resource. The Scheduling Coordinator must also demonstrate that the Non-Dynamic System Resource is covered by Operating Reserves, unless unit contingent, in the sending Balancing Authority Area. Eligibility as Resource Adequacy Capacity is contingent upon a showing by the Scheduling Coordinator of the System Resource that it has secured transmission through any intervening Balancing Authority Areas for the Operating Hours that cannot be curtailed for economic reasons or bumped by higher priority transmission. With respect to Non-Dynamic System Resources, any inter-temporal constraints, such as multi-hour run blocks, must be explicitly identified in the monthly Resource Adequacy Plan, and no constraints may be imposed beyond those explicitly stated in the plan.

41 Procurement of RMR Generation.

41.1 Procurement of Reliability Must-Run Generation by the CAISO.

A Reliability Must-Run Contract is a contract entered into by the CAISO with a Generator which operates a Generating Unit giving the CAISO the right to call on the Generator to generate Energy and, only as provided in this Section 41.1, or as needed for Black Start or Voltage Support required to meet local reliability needs, or to procure Ancillary Services from Potrero power plant to meet operating criteria associated with the San Francisco local reliability area, to provide Ancillary Services from the Generating Units as and when this is required to ensure that the reliability of the CAISO Controlled Grid is maintained.

- The CAISO will, subject to any existing power purchase contracts of a Generating Unit, have the right at any time based upon CAISO Controlled Grid technical analyses and studies to designate a Generating Unit as a Reliability Must-Run Unit. A Generating Unit so designated shall then be obligated to provide the CAISO with its proposed rates for Reliability Must-Run Generation for negotiation with the CAISO. Such rates shall be authorized by FERC or the Local Regulatory Authority, whichever authority is applicable.
- In addition to the Local Capacity Technical Study under 40.3.1, the CAISO may perform additional technical studies, as necessary, to ensure compliance with Reliability Criteria. The CAISO will then determine which Generating Units it requires to continue to be Reliability Must-Run Units, which Generating Units it no longer requires to be Reliability Must-Run Units and which Generating Units it requires to become the subject of a Reliability Must-Run Contract which had not previously been so contracted to the CAISO. None of the Generating Units owned by Local Publicly Owned Electric Utilities are planned to be designated as Reliability Must-Run Units by the CAISO as of the CAISO Operations Date but are expected to be operated in such a way as to maintain the safe and reliable operation of the interconnected transmission system comprising the CAISO Balancing Authority Area. However, in the future, Local Publicly Owned Electric Utilities may contract with the CAISO to provide Reliability Must-Run Generation.

A pro forma of the Reliability Must-Run Contract is attached as Appendix G. From the CAISO Operations Date all Reliability Must-Run Units will be placed under the "As Called" conditions, but the parties may, pursuant only to the terms of the Reliability Must-Run Contract, transfer any such unit to one of the alternative forms of conditions under specific circumstances. The CAISO will review the terms of the applicable forms of agreement applying to each Reliability Must-Run Unit to ensure that the CAISO will procure Reliability Must-Run Generation from the cheapest available sources and to maintain System Reliability. The CAISO shall give notice to terminate Reliability Must-Run Contracts that are no longer necessary or can be replaced by less expensive and/or more competitive sources for maintaining the reliability of the CAISO Controlled Grid.

41.5 RMR Dispatch.

41.5.1 Day-Ahead and HASP RMR Dispatch.

RMR Dispatches will be determined in accordance with the RMR Contract, the MPM-RRD process addressed in Sections 31 and 33 and through manual RMR Dispatch Notices to meet Applicable Reliability Criteria.

The CAISO will notify Scheduling Coordinators for RMR Units of the amount and time of Energy requirements from specific RMR Units in the Trading Day prior to or at the same time as the Day-Ahead Schedules and AS and RUC Awards are published, to the extent that the CAISO is aware of such requirements, through an RMR Dispatch Notice or flagged RMR Dispatch in the IFM Day-Ahead Schedule. The CAISO may also issue RMR Dispatch Notices after Market Close of the DAM and through Dispatch Instructions flagged as RMR Dispatches in the Real-Time Market. The Energy to be delivered for each Trading Hour pursuant to the RMR Dispatch Notice an RMR Dispatch in the IFM or Real-Time shall be referred to as the RMR Energy. Scheduling Coordinators may submit Bids in the DAM or the HASP for RMR Units operating under Condition 1 of the RMR Contract in accordance with the bidding rules applicable to non-RMR Units. A Bid submitted in the DAM or the HASP for a Condition 1 RMR Unit

shall be deemed to be a notice of intent to substitute a market transaction for the amount of MWh specified in each Bid for each Trading Hour pursuant to Section 5.2 of the RMR Contract. In the event the CAISO issues an RMR Dispatch Notice or an RMR Dispatch in the IFM or Real-Time Market for any Trading Hour, any MWh quantities cleared through Competitive Constraint Run of the MPM-RRD shall be considered as a market transaction in accordance with the RMR Contract. RMR Units operating as Condition 2 RMR Units may not submit Bids until and unless the CAISO issues an RMR Dispatch Notice or issues an RMR Dispatch in the IFM, in which case a Condition 2 RMR Unit shall submit Bids in accordance with the RMR Contract in the next available market for the Trading Hours specified in the RMR Dispatch Notice or Day-Ahead Schedule.

41.5.2 RMR Payments.

RMR Units operating as Condition 1 RMR Units or Condition 2 RMR Units that receive an RMR Dispatch Notice will be paid in accordance with the RMR Contract.

41.5.3 RMR Units and Ancillary Services Requirements.

The CAISO may call upon RMR Units in any amounts that the CAISO has determined is necessary at any time after the issuance of Day-Ahead Schedules for the Trading Day if: (i) the CAISO determines that it requires more of an Ancillary Service than it has been able to procure, except that the CAISO shall not be required to accept Ancillary Services Bids that exceed the price caps specified in Section 39 or any other FERC-imposed price caps; and (ii) the CAISO has notified Scheduling Coordinators of the circumstances existing in this Section 41.5.3, and after such notice, the CAISO determines that a bid insufficiency condition in accordance with the RMR Contract exists in the HASP and the CAISO requires more of an Ancillary Service. The CAISO must provide the notice specified in sub paragraph (ii) of this Section 41.5.3 as soon as possible after the CAISO determines that additional Ancillary Services are needed for which Bids are not available. The CAISO may only determine that a Bid insufficiency exists after the Market Close of the HASP, unless an earlier determination is required in order to accommodate the RMR

Unit's operating constraints. For the purposes of this Section 41.5.3, a Bid insufficiency exists in HASP if, and only if: (i) Bids in the HASP for the particular Ancillary Service that can be used to satisfy that particular Ancillary Services requirement that remain after first procuring the megawatts of the Ancillary Service that the CAISO had notified Scheduling Coordinators it would procure in the HASP ("remaining Ancillary Services requirement") represent, in the aggregate, less than two times such remaining Ancillary Services requirement; or (ii) there are less than two unaffiliated bidders to provide such remaining Ancillary Services requirement. If the CAISO determines that a Bid insufficiency condition exists as described in this Section 41.5.3, the CAISO may nonetheless accept available Bids if it determines in its sole discretion that the prices specified in the Bids and the Energy Bid Curves created by the Bids indicate that the Scheduling Coordinators were not attempting to exercise market power.

41.6 Reliability Must-Run Charge.

The CAISO shall prepare and send to each Responsible Utility in accordance with Section 11.13, a CAISO Invoice as provided in the RMR Contract in respect of those costs incurred under each Reliability Must-Run Contract that are payable to the CAISO by such Responsible Utility or payable by the CAISO to such Responsible Utility pursuant to Section 41.7. The CAISO Invoices as provided in the RMR Contract shall reflect all reductions or credits required or allowed under or arising from the Reliability Must-Run Contract or under this Section 41.6. The CAISO Invoice as provided in the RMR Contract shall separately show the amounts due for services from each RMR Owner. Each Responsible Utility shall pay the amount due under each CAISO Invoice as provided in the RMR Contract by the due date specified in the CAISO Invoice as provided in the RMR Contract, in default of which interest shall become payable at the interest rate provided in the Reliability Must-Run Contract from the due date until the date on which the amount is paid in full. For each Reliability Must-Run Contract, the CAISO shall establish two segregated commercial bank accounts under the Facility Trust Account referred to in Section 11.13.2.1

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and Article 9 of the Reliability Must-Run Contract. One commercial bank account, the RMR Owner Facility Trust Account, shall be held in trust by the CAISO for the RMR Owner. The other commercial bank account, the Responsible Utility Facility Trust Account, shall be held in trust by the CAISO for the Responsible Utility. Payments received by the CAISO from the Responsible Utility in connection with the Reliability Must-Run Contract, including payments following termination of the Reliability Must-Run Contract, will be deposited into the RMR Owner Facility Trust Account and payments from the CAISO to the RMR Owner will be withdrawn from such account, in accordance with this Section 41.6, Article 9 of the Reliability Must-Run Contract and Section 11.13. Any payments received by the CAISO from the RMR Owner in connection with the Reliability Must-Run Contract will be deposited into the Responsible Utility Facility Trust Account. Any payments due to the Responsible Utility of funds received from the RMR Owner in connection with the Reliability Must-Run Contract will be withdrawn from the Responsible Utility Facility Trust Account, in accordance with this Section 41.6, Section 11.13, and Article 9 of the Reliability Must-Run Contract. Neither the RMR Owner Facility Trust Account nor the Responsible Utility Facility Trust Account shall have other funds commingled in it at any time. The CAISO shall not modify this Section or Section 11.13 as it applies to procedures for the billing, invoicing and payment of charges under Reliability Must-Run Contracts without the Responsible Utility's consent, provided, however, that no such consent shall be required with respect to any change in the method by which costs incurred by the CAISO under RMR Contracts are allocated to or among Responsible Utilities.

41.6.1 Except where the Responsible Utility is also the RMR Owner, the Responsible Utility's payment of the CAISO Invoice as provided in the RMR Contract shall be made without offset, recoupment or deduction of any kind whatsoever. Notwithstanding the foregoing, if the CAISO fails to deduct an amount required to be deducted under Section 41.6.2, the Responsible Utility may deduct such amount from payment otherwise due under such CAISO Invoice as provided in the RMR Contract.

If the Responsible Utility disputes a CAISO Invoice as provided in the RMR Contract, 41.6.2 Revised Estimated RMR Invoice, or Revised Adjusted RMR Invoice, or Final Invoice, it shall pay the CAISO Invoice as provided in the RMR Contract but may pay under protest and reserve its right to seek a refund, with interest, from the CAISO. If resolution of the dispute results in an amount paid by the Responsible Utility under protest being due from the CAISO to the Responsible Utility and from the RMR Owner to the CAISO, and such amount was paid to the RMR Owner by the CAISO, then such amount, with interest at the interest rate specified in the applicable Reliability Must-Run Contract from the date of payment until the date on which the amount is repaid in full, shall be refunded by the RMR Owner to the CAISO and from the CAISO to the Responsible Utility, pursuant to Article 9 of the Reliability Must-Run Contract and Section 11.13, by the RMR Owner's inclusion of such refund amount in the appropriate invoice. If the RMR Owner does not include such refund amount (including interest) in the appropriate invoice, then such refund amount shall be deducted by the CAISO from the next succeeding amounts otherwise due from the Responsible Utility to the CAISO and from the next succeeding amounts otherwise due from the CAISO to the RMR Owner with respect to the applicable Reliability Must-Run Contract or, if such RMR Contract has terminated, such amount shall be refunded by the CAISO to the Responsible Utility; provided, however, that if and to the extent that such resolution is based on an error or breach or default of the RMR Owner's obligations to the CAISO under the Reliability Must-Run Contract, then such refund obligation shall extend only to amounts actually collected by the CAISO from the RMR Owner as a result of such resolution. If resolution of the dispute requires the CAISO, but not the RMR Owner, to pay the Responsible Utility, then such award shall be recovered from any applicable insurance proceeds, provided that to the extent sufficient funds are not recoverable through insurance, the amount of the award (whether determined through settlement, or the CAISO ADR Procedures or otherwise) shall be collected by the CAISO pursuant to Section 13.5, and in any event, the award shall be paid by the CAISO to the Responsible Utility pursuant to Section 13.5.

- 41.6.3 If the Responsible Utility disputes a CAISO Invoice as provided in the RMR Contract, a Revised Estimated RMR Invoice, a Revised Adjusted RMR Invoice, or a Final Invoice, or part thereof, based in whole or in part on an alleged error by the RMR Owner or breach or default of the RMR Owner's obligations to the CAISO under the Reliability Must-Run Contract, the Responsible Utility shall notify the CAISO of such dispute within twelve (12) months of its receipt of the applicable Revised Adjusted RMR Invoice or Final Invoice from the CAISO, except that the Responsible Utility may also dispute a Revised Estimated RMR Invoice, Revised Adjusted RMR Invoice, or Final Invoice for the reasons set forth above in this Section 41.6.3, within sixty (60) days from the issuance of a final report with respect to an audit of the RMR Owner's books and accounts allowed by a Reliability Must-Run Contract.
- 41.6.4 If the Responsible Utility disputes a CAISO Invoice as provided in the RMR Contract, a Revised Estimated RMR Invoice, a Revised Adjusted RMR Invoice, or a Final Invoice, based in whole or in part on an alleged error by the CAISO or breach or default of the CAISO's obligations to the Responsible Utility, the Responsible Utility shall notify the CAISO of such dispute prior to the later to occur of: (i) the date twelve (12) months following the date on which the CAISO submitted such invoice to the Responsible Utility for payment or (ii) the date sixty (60) days following the date on which a final report is issued in connection with an operational compliance review, pursuant to Section 22.1.2.2, of the CAISO's performance of its obligations to Responsible Utilities under this Section 41.6.4 conducted by an independent third party selected by the CAISO Governing Board and covering the period to which such alleged dispute relates. The CAISO or any Responsible Utility shall have the right to request, but not to require, that the CAISO Governing Board arrange for such an operational compliance review at any time.

- 41.6.5 Notwithstanding Section 13, any Responsible Utility dispute relating to a CAISO Invoice as provided in the RMR Contract, a Revised Estimated RMR Invoice, a Revised Adjusted RMR Invoice, a Final Invoice, or a RMR Charge, RMR Payment or RMR Refund shall be resolved through the dispute resolution process specified in the relevant RMR Contract. If the Responsible Utility fails to notify the CAISO of any dispute as provided above, it shall be deemed to have validated the invoice and waived its right to dispute such invoice.
- 41.6.6 The RMR Owner shall, to the extent set forth herein, be a third party beneficiary of, and have all rights that the CAISO has under the CAISO Tariff, at law, in equity or otherwise, to enforce the Responsible Utility's obligation to pay all sums invoiced to it in the CAISO Invoices as provided in the RMR Contract but not paid by the Responsible Utility, to the extent that, as a result of the Responsible Utility's failure to pay, the CAISO does not pay the RMR Owner on a timely basis amounts due under the Reliability Must-Run Contract. The RMR Owner's rights as a third party beneficiary shall be no greater than the CAISO's rights and shall be subject to the dispute resolution process specified in the relevant RMR Contract. Either the CAISO or the RMR Owner (but not both) will be entitled to enforce any claim arising from an unpaid CAISO Invoice as provided in the RMR Contract, and only one party will be a "disputing party" under the dispute resolution process specified in the relevant RMR Contract with respect to such claim so that the Responsible Utility will not be subject to duplicative claims or recoveries. The RMR Owner shall have the right to control the disposition of claims against the Responsible Utility for non-payments that result in payment defaults by the CAISO under a Reliability Must-Run Contract. To that end, in the event of non-payment by the Responsible Utility of amounts due under the CAISO Invoice as provided in the RMR Contract, the CAISO will not take any action to enforce its rights against the Responsible Utility unless the CAISO is requested to do so by the RMR Owner. The CAISO shall cooperate with the RMR Owner in a timely manner as necessary or appropriate to most fully effectuate

the RMR Owner's rights related to such enforcement, including using its best efforts to enforce the Responsible Utility's payment obligations if, as, to the extent, and within the time frame, requested by the RMR Owner. The CAISO shall intervene and participate where procedurally necessary to the assertion of a claim by the RMR Owner.

41.7 Responsibility for Reliability Must-Run Charge.

Except as otherwise provided in Section 41.8, the costs incurred by the CAISO under each Reliability Must-Run Contract shall be payable to the CAISO by the Responsible Utility in whose PTO Service Territory the Reliability Must-Run Units covered by such Reliability Must-Run Contract are located or, where a Reliability Must-Run Unit is located outside the PTO Service Territory of any Responsible Utility, by the Responsible Utility or Responsible Utilities whose PTO Service Territories are contiguous to the Service Area in which the Generating Unit is located, in proportion to the benefits that each such Responsible Utility receives, as determined by the CAISO. Where costs incurred by the CAISO under a Reliability Must-Run Contract are allocated among two or more Responsible Utilities pursuant to this section, the CAISO will file the allocation under Section 205 of the Federal Power Act.

41.8 Responsibility for Reliability Must-Run Charges Associated with SONGS.

If the CAISO procures Reliability Must-Run Generation from the San Onofre Nuclear Generation Station Units 2 or 3, it shall determine prior to the operation of such facilities as Reliability Must-Run Generation the appropriate allocation of associated charges, if any, among Responsible Utilities. The allocation of such charges shall be based on the reliability benefits that the CAISO reasonably identifies through studies and analysis as accruing to the respective Service Areas of the Responsible Utilities.

41.9 Exceptional Dispatch of Condition 2 RMR Units.

The CAISO may Dispatch an RMR Unit that has currently selected Condition 2 of its RMR Contract to provide Energy through an Exceptional Dispatch under this CAISO Tariff for reasons other than as prescribed in the RMR Contract under the following conditions:

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(1) The CAISO projects that it will require Energy from the Condition 2 RMR Unit to (a) meet forecast Demand and operating reserve requirements or (b) manage Congestion and no other Generating Unit that is available is capable of meeting the identified requirement;

41.9.1 Before dispatching a Condition 2 RMR Unit in accordance with this Section, the CAISO must notify Market Participants of (a) the situation for which the CAISO is contemplating dispatching a Condition 2 RMR Unit in accordance with this Section, and (b) the date and time the CAISO requires the Condition 2 RMR Unit so dispatched to be operating. The CAISO shall provide such notice as far in advance as practical and prior to directing the Condition 2 RMR Unit to Start-Up.

Notwithstanding anything to the contrary in the applicable RMR Contract, all MWh, Start-Ups and service hours provided by a Generating Unit that has currently selected Condition 2 of its RMR Contract pursuant to this Section 41.9.1 through an Exceptional Dispatch outside of the RMR Contract shall not be used to determine future "Annual Service Limits" as defined in the RMR Contract. Payment for Dispatches pursuant to this Section 41.9.1 is governed by Section 11.

- Assurance of Adequate Generation and Transmission to meet Applicable 42 Operating and Planning Reserve.
- 42.1 **Generation Planning Reserve Criteria.**

Generation planning reserve criteria shall be met as follows:

- 42.1.1. On an annual basis, the CAISO shall prepare a forecast of weekly Generation capacity and weekly peak Demand on the CAISO Controlled Grid. This forecast shall cover a period of twelve months and be posted on the CAISO Website and the CAISO may make the forecast available in other forms at the CAISO's option.
- 42.1.2 If the forecast shows that the Applicable Reliability Criteria can be met during peak Demand periods, then the CAISO shall take no further action.
- 42.1.3 If the forecast shows that the Applicable Reliability Criteria cannot be met during peak Demand periods, then the CAISO shall facilitate the development of market mechanisms to bring the CAISO Controlled Grid during peak periods into compliance with the Applicable Reliability Criteria (or such more stringent criteria as the CAISO may impose). The CAISO shall solicit Bids in the form of Ancillary Services, short-term Generation supply contracts of up to one (1) year with Generators, and Load curtailment contracts giving the CAISO the right to reduce the Demands of those parties that win the contracts when there is insufficient Generation capacity to satisfy those Demands in addition to all other Demands. The Load curtailment contracts shall provide that the CAISO's curtailment rights can only be exercised after all available Generation capacity has been fully utilized unless the exercise of such rights would allow the CAISO to satisfy the Applicable Reliability Criteria at lower cost, and the curtailment rights shall not be exercised to stabilize or otherwise influence prices for power in the Energy markets.
- 42.1.4 If Ancillary Services, short-term Generation supply contracts, or Load curtailment contracts are required to meet Applicable Reliability Criteria, the CAISO shall select the Bids that permit the satisfaction of those Applicable Reliability Criteria at the lowest cost.

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- 42.1.5 Notwithstanding the foregoing, if the CAISO concludes that it may be unable to comply with the Applicable Reliability Criteria, the CAISO shall, acting in accordance with Good Utility Practice, take such steps as it considers to be necessary to ensure compliance, including the negotiation of contracts through processes other than competitive solicitations. These steps can include the negotiation of contracts for Generation or Ancillary Services on a Real-Time basis.
- The CAISO may, in addition to the required annual forecast, publish a forecast of the peak Demands and Generation resources for two or more additional years. This forecast would be for information purposes to allow Market Participants to take appropriate steps to satisfy the Applicable Reliability Criteria, and would not be used by the CAISO to determine whether additional resources are necessary.
- 42.1.7 In fulfilling its requirement to ensure that the applicable Generation planning reserve criteria are satisfied, the CAISO shall rely to the maximum extent possible on market forces.
- 42.1.8 Except where and to the extent costs incurred by the CAISO for any contract entered into under Section 42.1.5 are recovered from Scheduling Coordinators pursuant to Sections 11.5.8, 11.10 or 42.1.9, all costs incurred by the CAISO in any Trading Hour shall be charged to each Scheduling Coordinator pro rata based upon the same proportion as the Scheduling Coordinator's Measured Demand bears to the total Measured Demand served in that hour.
- 42.1.9 Costs incurred by the CAISO pursuant to any contract entered into under this Section for resources to meet any portion of the anticipated difference between forward Schedules and the Real-Time deviations from those Schedules shall be charged to each Scheduling Coordinator pro rata based upon the same proportion as the Scheduling Coordinator's obligation for RUC Availability Payments.

Original Sheet No. 815 - 834

Section 43 [NOT USED]

Placeholder for Interim Capacity Procurement Mechanism Filing

[Twenty Sheet Numbers Reserved for ICPM Filing.]

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44 Temporary Suspension of CAISO Tariff.

44.1 Authority to Suspend Temporarily the Current Version of the CAISO Tariff and Reversion to Previously Effective ISO Tariff.

If, during the thirty (30) days following the effective date of this section, the CAISO concludes that a hardware or software failure or other event has compromised the ability of the CAISO to reliably and accurately operate the CAISO Controlled Grid and CAISO Balancing Authority Area and settle the CAISO's markets in accordance with the currently-effective version of the CAISO Tariff and Business Practice Manuals, the CAISO may temporarily suspend the effectiveness of the currently-effective CAISO Tariff, or any part thereof, and operate under the terms and conditions of the ISO Tariff in effect on the day before the effective date of this section. In the event of such a suspension or partial suspension, the CAISO shall perform Settlements in accordance with a single version of the CAISO Tariff for the entire month in which the suspension occurred to the extent practicable. The CAISO shall terminate such temporary suspension immediately upon restoration of the CAISO's ability to reliably and accurately operate the CAISO Controlled Grid and CAISO Balancing Authority Area and settle the CAISO's markets.

44.2 Notice of Effectiveness and Termination of Temporary Suspension.

The CAISO shall issue a Market Notice announcing any temporary suspension declared under Section 44.1 and stating the reason for the suspension. The suspension shall take effect at the time and date specified by the CAISO in the Market Notice. Within five (5) Business Days after the issuance of the Market Notice announcing the temporary suspension, the CAISO shall file a report with FERC describing the reasons for the temporary suspension and the estimated time by which the suspension will be terminated. The CAISO shall issue a subsequent Market Notice announcing the time and date on which the termination of the temporary suspension will be effective.

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44.3 **Preconditions to Suspension.**

The CAISO shall not declare a suspension under Section 44.1 unless it has determined that there are no viable automated or manual work-arounds or other options that would restore the ability of the CAISO to reliably and accurately operate the CAISO Controlled Grid and CAISO Balancing Authority Area and settle the CAISO's markets in accordance with the CAISO Tariff and Business Practice Manuals while the underlying problem is resolved.

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CAISO Tariff Appendix A

Master Definitions Supplement

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Appendix A

Master Definition Supplement

ACA Adjacent Control Area

Access Charge A charge paid by all Utility Distribution Companies, Small Utility

> Distribution Companies, and MSS Operators with Gross Load in a PTO Service Territory, as set forth in Article II. The Access Charge includes the High Voltage Access Charge, the Transition Charge and the Low

Voltage Access Charge. The Access Charge will recover the

Participating TO's Transmission Revenue Requirement in accordance

with Appendix F, Schedule 3.

ACE Area Control Error **ACR** All Constraints Run

Adjacent Control Area

(ACA)

A Control Area that is tightly interconnected with the CAISO Control Area, but also has direct interconnections with other Control Areas, possibly including other ACAs, such that power flows in one Control Area

significantly affect power flows in the other Control Area.

Adjusted Load Metric A Load Serving Entity's Load Metric minus the megawatts of Load

served using Existing Transmission Contracts, Converted Rights, and

Transmission Ownership Rights.

Adjusted RMR Invoice The monthly invoice issued by the RMR Owner to the CAISO for

adjustments made to the Revised Estimated RMR Invoice pursuant to

the RMR Contract reflecting actual data for the billing month.

Adjusted Verified CRR

Source Quantity

The MW amount eligible for nomination by an LSE or Qualified

OBAALSE in a verified tier of the CRR Allocation process, determined

by reducing a Verified CRR Source Quantity to account for

circumstances where the ownership or contract right to a generating

resource is effective only for a portion of a particular season or month for

which CRRs are being nominated.

Administrative Price The price set by the CAISO in place of a Locational Marginal Price

> when, by reason of a System Emergency, the CAISO determines that it no longer has the ability to maintain reliable operation of the CAISO Controlled Grid relying solely on the economic Dispatch of Generation. This price will remain in effect until the CAISO considers that the System

Emergency has been contained and corrected.

ADR Alternative Dispute Resolution **ADS Automated Dispatch System**

Adverse System Impact The negative effects due to technical or operational limits on conductors

or equipment being exceeded that may compromise the safety and

reliability of the electric system.

Affected System An electric system other than the CAISO Controlled Grid that may be

> affected by the proposed interconnection, including the Participating TOs' electric systems that are not part of the CAISO Controlled Grid.

Affected System Operator The entity that operates an Affected System.

Affiliate With respect to a corporation, partnership or other entity, each such

> other corporation, partnership or other entity that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such corporation, partnership or other

entity.

AGC Automatic Generation Control

Aggregate Credit Limit The sum of a Market Participant's or CRR Holder's Unsecured Credit

Limit and its Financial Security Amount, as provided for in Section 12.

Aggregated Participating Load

An aggregation at one or more Participating Load Locations, created by the CAISO in consultation with the relevant Participating Load, for the purposes of enabling participating of the Participating Load in the CAISO

Markets like Generation by submitting Supply Bids when offering Curtailable Demand and as non-Participating Load by submitting

Demand Bids to consume in the Day-Ahead Market only.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008 Aggregated Pricing Node (Aggregated PNode)

A Load Aggregation Point, Trading Hub or any group of Pricing Nodes as defined by the CAISO.

Alert, Warning or Emergency (AWE) Notice A CAISO operations communication issued to Market Participants and the public, under circumstances and in a form specified in CAISO Operating Procedures, when the operating requirements of the CAISO Controlled Grid are marginal because of Demand exceeding forecast, loss of major Generation sources, or loss of transmission capacity that has curtailed imports into the CAISO Balancing Authority Area, or if insufficient Bids for the Supply of Energy and Ancillary Services have been submitted in the HASP for the CAISO Balancing Authority Area.

All Constraints Run (ACR)

The second optimization run of the MPM-RRD process through which all known transmission Constraints are enforced.

Ancillary Service Award or AS Award

The notification by the CAISO indicating that a Bid to supply an Ancillary Service has been selected to provide such service in the DAM, HASP, or RTM.

Ancillary Service Bid Cost or AS Bid Cost

An amount equal to the product of the AS Award from each accepted AS Bid, reduced by any applicable No Pay capacity, and the relevant AS Bid price.

Ancillary Service Bid or AS Bid

The Bid component that indicates the quantity in MW and a price in dollars per MW for a specific Ancillary Service, including Regulation Up, Regulation Down, Spinning Reserve and Non-Spinning Reserve, that a Scheduling Coordinator is offering to supply in a CAISO Market from a Generating Unit or System Resource, and only for Non-Spinning Reserve from the Load of a Participating Load.

Ancillary Service Marginal Price (ASMP)

The marginal cost of providing an Ancillary Service in the relevant resource Location (\$/MW).

Ancillary Service Obligation or AS Obligation A Scheduling Coordinator's hourly obligation for Regulation Down, Regulation Up, Spinning Reserves, and Non-Spinning Reserves calculated pursuant to Section 11.10.2.1.3, 11.10.2.2.2, 11.10.3.2, and 11.10.4.2, respectively.

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Ancillary Service Provider A Participating Generator, System Resource operator, or Participating

Load that is certified to provide an Ancillary Service.

Ancillary Service Region

or AS Region

The System Region, the Expanded System Region, or any Sub-Region

identified by the CAISO for procurement of Ancillary Services.

Ancillary Service Regional

Limit

A maximum or a minimum, or both a maximum and a minimum, amount

of (or boundary of) Ancillary Services to be obtained within an AS Region. Limits can be expressed as either megawatt amounts or

percentages.

Ancillary Services (AS) Regulation, Spinning Reserve, Non-Spinning Reserve, Voltage Support

> and Black Start together with such other interconnected operation services as the CAISO may develop in cooperation with Market Participants to support the transmission of Energy from Generation resources to Loads while maintaining reliable operation of the CAISO Controlled Grid in accordance with WECC standards and Good Utility

Practice.

Ancillary Service Schedule or AS Schedule The notification by the CAISO indicating that a Submission to Self-

Provide an Ancillary Service has been selected to provide such service

in the DAM, HASP, or RTM.

Annual Peak Demand

Forecast

A Demand Forecast of the highest Hourly Demand in a calendar year, in

MW.

Applicable Reliability

Criteria

The Reliability Standards and reliability criteria established by NERC

and WECC and Local Reliability Criteria, as amended from time to time,

including any requirements of the NRC.

Approved Load Profile Local Regulatory Authority approved Load profiles applied to cumulative

End-Use Meter Data in order to allocate consumption of Energy to

Settlement Periods.

Approved Maintenance

Outage

A Maintenance Outage which has been approved by the CAISO through

the CAISO Outage Coordination Office.

ARDP Average Rating Default Probability

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Area Control Error (ACE)

The sum of the instantaneous difference between the actual net Interchange and the scheduled net Interchange between the CAISO Balancing Authority Area and all interconnected Balancing Authority Areas, taking into account the effects of the CAISO Balancing Authority Area's frequency bias, correction of meter error, and time error correction obligations.

AS Ancillary Services

ASMP Ancillary Service Marginal Price
ATC Available Transfer Capability

Automated Dispatch The CAISO systems application to communicate Dispatch Instructions to

System (ADS) Scheduling Coordinators.

Automatic Generation Generation equipment that automatically responds to signals from the Control (AGC)

CAISO's EMS control in Real-Time to control the Power output of Generating Units within a prescribed area in response to a change in system frequency, tie-line loading, or the relation of these to each other, so as to maintain the target system frequency and the established

Interchange with other Balancing Authority Areas within the

predetermined limits.

Available Import The Maximum Capability

The Maximum Import Capability of an Intertie into the CAISO Balancing Authority Area in MW deliverable to the CAISO Balancing Authority Area based on CAISO study criteria minus the sum in MW of all Existing Contracts and Transmission Ownership Rights over that Intertie held by load serving entities that do not serve Load within the CAISO Balancing Authority Area.

Available Transfer Capability (ATC)

The available capacity of a given transmission path, in MW after allocation of rights associated with Existing Contracts and

Transmission Ownership Rights, to that path's Operating Transfer Capability established consistent with CAISO and WECC transmission

capacity rating guidelines, further described in Appendix L.

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Average Rating Default **Probability (ARDP)**

The sum of Credit Rating Default Probabilities divided by the total

number of Credit Rating Default Probabilities used.

AWE Notice Alert, Warning or Emergency Notice

Backup CAISO Control Center

The CAISO Control Center located in Alhambra, California.

Backup Meter

A redundant revenue quality meter which is identical to and of equal accuracy to the primary revenue quality meter connected at the same metering point which must be certified in accordance with the CAISO

Tariff.

BAID Business Associate Identification

Balancing Account An account set up to allow periodic balancing of financial transactions

that, in the normal course of business, do not result in a zero balance of

cash inflows and outflows.

Balancing Authority The responsible entity that integrates resource plans ahead of time,

> maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time.

Balancing Authority Area The collection of generation, transmission, and loads within the metered

boundaries of the Balancing Authority. The Balancing Authority

maintains load-resource balance within this area.

Balancing Authority Area

Gross Load

For the purpose of calculating and billing Minimum Load Costs, Emission Costs, and Start-Up Costs, Balancing Authority Area Gross Load is all Demand for Energy within the CAISO Balancing Authority

Area. Balancing Authority Area Gross Load shall not include Energy

consumed by:

Station Power that is netted pursuant to Section 10.1.3; and (a)

(b) Load that is isolated electrically from the CAISO Balancing

Authority Area (i.e., Load that is not synchronized with the CAISO

Balancing Authority Area).

Base Case The base case power flow, short circuit, and stability data bases used

for the Interconnection Studies.

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BCR Bid Cost Recovery

Bid An offer for the Supply or Demand of Energy or Ancillary Services,

including Self-Schedules, submitted by Scheduling Coordinators for specific resources, conveyed through several components that apply differently to the different types of service offered to or demanded from

any of the CAISO Markets.

Bid Adder A dollar amount added to the Bid of a Frequently Mitigated Unit.

Bid Cost Recovery (BCR)The CAISO settlements process through which Eligible Resources

recover their Bid Costs.

Bid Cost Recovery
Eligible Resources (BCR
Eligible Resources)

Those resources eligible to participate in the Bid Cost Recovery as specified in Section 11.8, which include Generating Units, System Units,

System Resources, and Participating Loads.

Bid Costs The costs for resources manifested in the Bid components submitted,

which include the Start-Up Cost, Minimum Load Cost, Energy Bid Cost, Pump Shut-Down Cost, Pumping Cost, Ancillary Services Bid Cost and

RUC Availability Payment.

Black Start The procedure by which a Generating Unit self-starts without an external

source of electricity thereby restoring a source of power to the CAISO Balancing Authority Area following system or local area blackouts.

Black Start Generator A Participating Generator in its capacity as party to an Interim Black

Start Agreement with the CAISO for the provision of Black Start

services, but shall exclude Participating Generators in their capacity as

providers of Black Start services under their Reliability Must-Run

Contracts.

BPM Business Practice Manual

BPM PRRBusiness Practice Manual Proposed Revision Request

Bulk Supply Point A Utility Distribution Company or Small Utility Distribution Company

metering point.

Business Associate Any entity with whom the CAISO interacts related to the CAISO

Markets.

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Business Associate Identification (BAID) Identification characters assigned to each Business Associate by the

CAISO.

Business Day Monday through Friday, excluding federal holidays and the day after

Thanksgiving Day.

Business Practice Manual Proposed Revision Request (BPM PRR) **Business Practice** Manuals (BPMs)

A request to make any change to a BPM, including any attachments

thereto, as described in Section 22.11.1.

A collection of documents made available by the CAISO on the CAISO Website that contain the rules, polices, procedures and guidelines established by the CAISO for operational, planning, accounting and settlement requirements of CAISO Market activities, consistent with the

CAISO Tariff.

CAISO The California Independent System Operator Corporation, a state

> chartered, California non-profit public benefit corporation that operates the transmission facilities of all Participating TOs and dispatches certain

Generating Units and Loads.

CAISO Account The CAISO Clearing Account, the CAISO Reserve Account or such

> other trust accounts as the CAISO deems necessary or convenient for the purpose of efficiently implementing the funds transfer system under

the CAISO Tariff.

CAISO ADR Procedures The procedures for resolution of disputes or differences set out in

Section 13.

CAISO Alternative Dispute Resolution Committee (CAISO ADR Committee)

The Committee appointed by the CAISO ADR Committee pursuant to Article IV, Section 3 of the CAISO bylaws to perform functions assigned

to the CAISO ADR Committee in the ADR process in Section 13.

CAISO Audit Committee A committee of the CAISO Governing Board appointed pursuant to

> Article IV, Section 5 of the CAISO bylaws to (1) review the CAISO's annual independent audit (2) report to the CAISO Governing Board on

such audit, and (3) monitor compliance with the CAISO Code of

Conduct.

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CAISO Authorized

Inspector

A person authorized by the CAISO to certify, test, inspect and audit

meters and Metering Facilities in accordance with the procedures

established by the CAISO pursuant to Section 10.

CAISO Bank The bank appointed by the CAISO from time to time for the purposes of

operating the Settlement process.

CAISO CEO The Chief Executive Officer of the CAISO.

CAISO Clearing Account The account in the name of the CAISO with the CAISO Bank to which

payments are required to be transferred for allocation to CAISO

Creditors in accordance with their respective entitlements.

CAISO Code of Conduct For employees, the code of conduct for officers, employees and

substantially full-time consultants and contractors of the CAISO as set out in exhibit A to the CAISO bylaws; for governors, the code of conduct for governors of the CAISO as set out in exhibit B to the CAISO bylaws.

CAISO Commitment

Period

The portion of a Commitment Period that is not a Self-Commitment

Period.

CAISO Control Center The control center established by the CAISO pursuant to Section 7.1.

CAISO Controlled Grid The system of transmission lines and associated facilities of the

Participating TOs that have been placed under the CAISO's Operational

Control.

CAISO Creditor A Business Associate to which amounts are payable under the terms of

the CAISO Tariff and agreements with the CAISO.

CAISO DebtorA Business Associate that is required to make a payment to the CAISO

under the CAISO Tariff and agreements with the CAISO.

CAISO Demand Power delivered to Load internal to CAISO Balancing Authority Area.

CAISO Documents The CAISO Tariff, CAISO bylaws, and any agreement entered into

between the CAISO and a Scheduling Coordinator, a Participating TO or

any other Market Participant pursuant to the CAISO Tariff.

CAISO Emissions Cost

Trust Account

The CAISO Account established pursuant to Section 11.18.2.

CAISO Forecast of CAISO

Demand

The forecast of CAISO Demand made by the CAISO for use in the

CAISO Markets.

CAISO Governing Board The Board of Governors established to govern the affairs of the CAISO.

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CAISO IFM Commitment Period

The portion of a Commitment Period in the IFM that is not a Self-

Commitment Period.

CAISO Invoice The invoices issued by the CAISO to the Responsible Utilities or RMR

Owners based on the Revised Estimated RMR Invoice and the Revised

Adjusted RMR Invoice.

CAISO Markets Any of the markets administered by the CAISO under the CAISO Tariff,

including, without limitation, the DAM, HASP, RTM, Transmission, and

Congestion Revenue Rights.

CAISO Markets Processes The MPM-RRD, IFM, RUC, STUC, RTUC, and RTD. HASP is an hourly

run of the RTUC.

CAISO Memorandum Account

The memorandum account established by each California IOU pursuant

to California Public Utilities Commission Order D. 96-08-038 date

August 2, 1996 which records all CAISO start up and development costs

incurred by that California IOU.

CAISO Metered Entity

any one of the following entities that is directly connected to the CAISO Controlled Grid:

- a Generator other than a Generator that sells all of its Energy (excluding any Station Power that is netted pursuant to Section 10.1.3) and Ancillary Services to the Utility Distribution Company or Small Utility Distribution Company in whose Service Area it is located:
- ii. an MSS Operator; or
- iii. a Utility Distribution Company or Small Utility Distribution Company; and
- (b) any one of the following entities:
- a Participating Generator;
- ii. a Participating TO in relation to its Tie Point Meters with other TOs or Balancing Authority Areas;
- iii. a Participating Load;
- iv. a Participating Intermittent Resource; or
- v. a utility that requests that Unaccounted for Energy for its Service Area be calculated separately, in relation to its meters at points of connection of its Service Area with the systems of other utilities.

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CAISO Operations Date March 31, 1998.

CAISO OutageThe office established by the CAISO to coordinate Maintenance **Coordination Office**Outage 12 Octage 12 Octage 13 Octage 14 Octa

Outages in accordance with Section 9.3.

CAISO PaymentsA calendar published by the CAISO showing the dates on which **Calendar**

Settlement Statements will be published by the CAISO and the Payment

Dates by which Invoices issued under the CAISO Tariff must be paid.

CAISO Planning Standards

Reliability Criteria that: (1) address specifics not covered in the NERC and WECC planning standards; (2) provide interpretations of the NERC and WECC planning standards specific to the CAISO Controlled Grid; and (3) identify whether specific criteria should be adopted that are more

stringent than the NERC and WECC planning standards.

CAISO ProtocolsThe rules, protocols, procedures and standards promulgated by the

CAISO (as amended from time to time) to be complied with by the

CAISO, Scheduling Coordinators, Participating TOs and all other Market Participants in relation to the operation of the CAISO Controlled Grid and the participation in the markets for Energy and Ancillary Services in

accordance with the CAISO Tariff.

CAISO Register The register of all the transmission lines, associated facilities and other

necessary components that are at the relevant time being subject to the

CAISO's Operational Control.

CAISO Reserve Account The account established for the purpose of holding cash deposits which

may be used in or towards clearing the CAISO Clearing Account.

CAISO Surplus Account

CAISO Tariff

The account established by the CAISO pursuant to Section 11.29.9.6.3.

The California Independent System Operator Corporation Operating

Agreement and Tariff, dated March 31, 1997, as it may be modified from

time to time.

CAISO Website The CAISO internet home page at http://www.caiso.com or such other

internet address as the CAISO shall publish from time to time.

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CAISO-WECC Billing Services Agreement

The agreement between the CAISO and the WECC entered into by those parties in August 2007, as it may be amended from time to time, regarding the CAISO's performance of certain billing services to facilitate the WECC's collection of NERC/WECC Charges.

Candidate CRR Holder

An entity that is registered and qualified by the CAISO to participate in the CRR Allocation, the CRR Auction, or the Secondary Registration System to become a CRR Holder and is a party to a fully executed CRR Entity Agreement, and therefore must comply with the requirements for Candidate CRR Holders under the CAISO Tariff.

Capacity Benefit Margin

(CBM)

CDWR-SWP

The factor defined in Appendix L.

CBM Capacity Benefit Margin CCR Competitive Constraints Run

CDWR-SWP Participating

Generating Units

The California Department of Water Resources, State Water Project. The Generating Units operated by the California Department of Water

Resources, State Water Project, that are subject to a Participating

Generator Agreement with the CAISO.

The California Energy Commission or its successor. CEC

Certificate of Compliance A certificate issued by the CAISO which states that the Metering

Facilities referred to in the certificate satisfy the certification criteria for

Metering Facilities contained in the CAISO Tariff.

C.F.R. Code of Federal Regulations.

Charge Code A numeric identifier used to specify Settlement calculations in the

Business Practice Manual.

Clean Bid A valid Bid submitted by a Scheduling Coordinator that requires no

modification, a Default Modified Bid, or a Generated Bid deemed to be

acceptable for submission to the CAISO Market applications.

Clustering The process whereby a group of Interconnection Requests is studied

together, instead of serially, for the purpose of conducting the

Interconnection System Impact Study.

COG Constrained Output Generator

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Commercial Operation The status of a Generating Unit at a Generating Facility that has

commenced generating electricity for sale, excluding electricity

generated during Trial Operation.

Commercial Operation

Date

The date on which a Generating Unit at a Generating Facility

commences Commercial Operation as agreed to by the applicable

Participating TO and the Interconnection Customer pursuant to Appendix E to the Standard Large Generator Interconnection

Agreement.

Commitment Interval The fifteen minute period of time for which the CAISO commits units

through the Real-Time Unit Commitment process.

Commitment Period The consecutive Time Periods within a Trading Day with an "On"

Commitment Status.

Commitment Status The "On" or "Off" state for each unit in each Time Period.

Competitive Constraints

Run (CCR)

The first optimization run of the MPM-RRD process through which all

pre-designated competitive Constraints are enforced.

Condition 1 RMR Unit

Condition 2 RMR Unit

Congestion

A resource operating pursuant to Condition 1 of its RMR Contract. A resource operating pursuant to Condition 2 of its RMR Contract.

A characteristic of the transmission system produced by a

binding Constraint to the optimum economic dispatch to meet Demand such that the LMP, exclusive of Marginal Cost of Losses, at different

Locations of the transmission system is not equal.

Congestion Charge A charge attributable to the Marginal Cost of Congestion at a given

pricing PNode.

Congestion Data

Summary

A report issued by the CAISO on the schedule set forth in the Business

Practice Manual that sets forth historic Congestion on the CAISO

Controlled Grid.

Congestion Management The alleviation of Congestion in accordance with applicable CAISO

procedures, the CAISO Tariff, and Good Utility Practice.

Congestion Management

Charge

The component of the Grid Management Charge that provides for the

recovery of the CAISO's costs of operating the Congestion Management process including, but not limited to, the management and operation of Congestion markets, taking Congestion Revenue Rights, Transmission Ownership Rights, and Existing Contracts into account, and determining

the price for mitigating Congestion for flows on Congested paths.

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FOURTH REPLACEMENT VOLUME NO. II

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Congestion Revenue Right (CRR)

A CRR Obligation or CRR Option.

Connected Entity

A Participating TO or any party that owns or operates facilities that are

electrically interconnected with the CAISO Controlled Grid.

Constrained Output Generator (COG)

A Generating Unit that, due to operational characteristics, can only be dispatched in one of two states: either turned completely Off, or turned

On and run at a fixed capacity level.

Constraints Physical and operational limitations on the transfer of electrical power

through transmission facilities.

Contingency A potential Outage that is unplanned, viewed as possible or eventually

> probable, which is taken into account when considering approval of other requested Outages or while operating the CAISO Balancing

Authority Area.

Contingency Flag The daily Bid component that indicates that the Spinning Reserves and

Non-Spinning Reserves being offered in the CAISO Market are

Contingency Only reserves.

Contingency Only A resource providing Operating Reserve capacity that may be

Dispatched by the CAISO only in the event of a Contingency or System

Emergency.

Contract Reference Number (CRN)

The Bid component that indicates the specific contract identification number issued by the CAISO to Scheduling Coordinators transactions

under Existing Contracts or TORs.

Control Area Balancing Authority Area

Control Area Gross Load Balancing Authority Area Gross Load

Control Area Operator Balancing Authority

Converted Rights Those transmission service rights as defined in Section 4.3.1.6.

Core Reliability Services -

Demand Charge

A component of the Grid Management Charge that provides for the

recovery of the CAISO's costs of providing a basic, non-scalable level of reliable operation for the CAISO Control Area and meeting regional and national reliability requirements. The formula for determining the Core

Reliability Services – Demand Charge is set forth in Appendix F,

Schedule 1, Part A of this Tariff.

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Core Reliability Services -**Energy Export Charge**

A component of the Grid Management Charge that provides for the recovery of the CAISO's costs of providing a basic, non-scalable level of reliable operation for the CAISO Control Area and meeting regional and national reliability requirements. The formula for determining the Core Reliability Services – Energy Exports Charge is set forth in Appendix F, Schedule 1, Part A of this Tariff.

CPUC

The California Public Utilities Commission, or its successor.

CPUC Load Serving Entity

Any entity serving retail Load in the CAISO Balancing Authority Area under the jurisdiction of the CPUC, including an electrical corporation under section 218 of the California Public Utilities Code, an electric service provider under section 218.3 of the California Public Utilities Code, and a community choice aggregator under section 331.1 of the

California Public Utilities Code.

Credit Margin

The quantity equal to Expected Congestion Revenue minus Fifth

Percentile Congestion Revenue.

Credit Rating Default Probability

The 5 year median default probability based on a rating agency's credit rating as listed in the Credit Rating Default Probabilities table in Section

A-2.2 of the CAISO Credit Policy & Procedures Guide.

Critical Energy Infrastructure Information (CEII)

Critical Energy Infrastructure Information shall have the meaning given the term in the regulations of FERC at 18 C.F.R. § 388.12, et seq.

Critical Protective System

Facilities and sites with protective relay systems and Remedial Action Schemes that the CAISO determines may have a direct impact on the ability of the CAISO to maintain system security and over which the CAISO exercises Operational Control.

CRN Contract Reference Number **CRR** Congestion Revenue Rights

CRR Allocation The process of nominations and awards held monthly and annually

through which the CAISO will distribute CRRs to Candidate CRR

Holders.

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CRR Annual Cycle Time period covered by all the CRRs released in an annual CRR

Allocation and CRR Auction processes.

CRR Auction The annual and monthly market process that will follow CRR Allocation

through which the CAISO makes CRRs available to Candidate CRR

Holders that submit offers to purchase CRRs.

CRR Auction Price The positive or negative price to pay or be paid for a CRR at auction.

CRR Balancing Account The financial account held by the CAISO for CRRs that is administered

in accordance with Section 11.2.4.

CRR Charge The charge assessed by the CAISO on the holder of a CRR Obligation

when Congestion is in the opposite direction of the CRR Source to CRR

Sink specification as described in Section 11.2.4.

CRR Eligible Quantity The Seasonal CRR Eligible Quantity or the Monthly CRR Eligible

Quantity.

CRR Entity Agreement An agreement between the CAISO and a Candidate CRR Holder or

CRR Holder that must be fully executed in order for such an entity to

participate in the CRR Allocation, CRR Auction, or Secondary Registration System, a pro forma version of which is set forth in

Appendix B.11.

CRR Holder A Candidate CRR Holder that has acquired CRR(s) either through the

CRR Allocation, the CRR Auction, or through a transaction registered in

the Secondary Registration System.

CRR Load Metric The Seasonal CRR Load Metric or Monthly CRR Load Metric.

CRR Obligation A financial instrument that entitles the holder to a CRR Payment when

> Congestion is in the direction of the CRR Source to CRR Sink specification and imposes on its holder a CRR Charge when

Congestion is in the opposite direction of the CRR Source to CRR Sink

specification as described in Section 11.2.4.

CRR Option A financial instrument that entitles its holder to a CRR Payment when

Congestion is in the direction of the CRR Source to CRR Sink

specification.

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CRR Payment A payment from the CAISO to a CRR Holder as specified in Section

11.2.4.

CRR Sink A PNode or a Trading Hub specified as the point of withdrawal for a

Congestion Revenue Right.

CRR Source A PNode or a Trading Hub specified as the point of receipt for a

Congestion Revenue Right.

CRR Term Set of hours for which a given CRR is effective, based on the CRR

> specifications in Section 36.3, which is either the season multiplied by the time of use specifications or the month multiplied by the time of use

specifications.

CRR Year Four The fourth period of time for which the CAISO conducts an annual CRR

Allocation, as defined in the Business Practice Manual.

CRR Year One The first period of time for which the CAISO conducts an annual CRR

Allocation, as defined in the Business Practice Manuals.

CRR Year Three The third period of time for which the CAISO conducts an annual CRR

Allocation, as defined in the Business Practice Manual.

CRR Year Two The second period of time for which the CAISO conducts an annual

CRR Allocation, as defined in the Business Practice Manual.

Curtailable Demand Demand from a Participating Load or Aggregated Participating Load that

> can be curtailed at the direction of the CAISO in the Real-Time Dispatch of the CAISO Controlled Grid. Scheduling Coordinators with Curtailable Demand may offer it to the CAISO to meet Non-Spinning Reserve or

Imbalance Energy.

Custom Load Aggregation

Point (Custom LAP)

An aggregation of Load PNodes created by the CAISO based on a set of custom LDFs submitted by a Scheduling Coordinator, at which such Scheduling Coordinator may submit a single Bid and settle Demand

consistent with the CAISO Tariff rules, and for which the Scheduling Coordinator is required to submit to the CAISO Meter Data for the nodal

Load represented in such aggregation.

DAM Day-Ahead Market

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The Trading Day to which the Settlement Statement or Settlement calculation refers. For example "Day 41" shall mean the 41st day after that Trading Day and similar expressions shall be construed accordingly.

Day-Ahead

The twenty-four hour time period prior to the Trading Day.

Day-Ahead Bid Awarded Energy

The Day-Ahead Scheduled Energy above the Day-Ahead Total Self-Schedule and below the Day-Ahead Schedule. The Day-Ahead Bid Awarded Energy is also indexed against the relevant Day-Ahead Energy Bid and sliced by the Energy Bid price. The Day-Ahead Energy Bid Awarded Energy slices are settled as described in Section 11.2.1.1, and they are included in BCR as described in Section 11.8.2.1.5.

Day-Ahead Inter-SC Trade Period

The period commencing seven (7) days prior to the applicable Trading Day and ending at 12:00 p.m. noon on the day prior to that Trading Day, during which time the CAISO will accept Inter-SC Trades of Energy for the DAM from Scheduling Coordinators.

Day-Ahead Market (DAM)

A series of processes conducted in the Day-Ahead that includes the Market Power Mitigation-Reliability Requirement Determination, the Integrated Forward Market and the Residual Unit Commitment.

Day-Ahead Minimum Load Energy

Day-Ahead Scheduled Energy below the registered Minimum Load, which applies to Generating Units with non-zero Minimum Load. Day-Ahead Minimum Load Energy is settled as provided in Section 11.2.1.1, and it is included in Bid Cost Recovery (BCR) at the relevant IFM Minimum Load Cost as described in Section 11.8.2.1.2.

Day-Ahead Pumping Energy

Negative Day-Ahead Scheduled Energy consumed by Participating Load Pumped-Storage Hydro Units and Pumping Load scheduled in pumping mode in the IFM. When Day-Ahead Pumping Energy is present, there are no other Day-Ahead Scheduled Energy subtypes present. Day-Ahead Pumping Energy is settled as provided in Section 11.2.1.3 and it is included in BCR as described in Sections 11.8.2.1.4 and 11.8.2.2.

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Day-Ahead Schedule

A Schedule issued by the CAISO one day prior to the target Trading Day indicating the levels of Supply and Demand for Energy cleared through the IFM and scheduled for each Settlement Period, for each PNode or Aggregated Pricing Node, including Scheduling Points of that Trading Day.

Day-Ahead Scheduled Energy

Hourly Energy that corresponds to the flat portions of the hourly Day-Ahead Schedule. It is composed of Day-Ahead Minimum Load Energy, Day-Ahead Self-Scheduled Energy, and Day-Ahead Bid Awarded Energy. It does not include the Day-Ahead Energy that corresponds to the flat schedule when a resource is committed in the Day-Ahead in pumping mode. Expected Energy committed in Day-Ahead pumping mode is accounted for as Day-Ahead Pumping Energy. Day-Ahead Scheduled Energy is settled as specified in Section 11.2.1.1.

Day-Ahead Self-Scheduled Energy

Day-Ahead Scheduled Energy above the registered Minimum Load and below the lower of the Day-Ahead Total Self-Schedule or the Day-Ahead Schedule. Day-Ahead Self-Scheduled Energy is settled as described in Section 11.2.1.1, and, as indicated in Section 11.8.2.1.5, it is not included in BCR.

Day-Ahead Total Self-Schedule

The sum of all Day-Ahead Self-Schedules (except Pumping Load Self-Schedules) in the relevant Clean Bid.

Default Energy Bid

The Energy Bid Curve used in Local Market Power Mitigation pursuant

to Section 39.

Default LAP

The LAP defined for the TAC Area at which all Bids for Demand shall be submitted and settled, except as provided in Sections 27.2.1 and 30.5.3.2.

Default Modified Bid

A Bid that is submitted by a Scheduling Coordinator and is deemed valid and qualifies for modification under the provisions of Section 40.

Deliverability Assessment

An evaluation by the Participating TO, CAISO or a third party consultant for the Interconnection Customer to determine a list of facilities, the cost of those facilities, and the time required to construct these facilities, that would ensure a Generating Facility could provide Energy to the CAISO Controlled Grid at peak Load, under a variety of severely stressed conditions, such that the aggregate of Generation in the local area can be delivered to the aggregate of Load on the CAISO Controlled Grid, consistent with the CAISO's reliability criteria and procedures.

Delivery Network Upgrades

Transmission facilities at or beyond the Point of Interconnection, other than Reliability Network Upgrades, identified in the Interconnection Studies to relieve Constraints on the CAISO Controlled Grid.

Delivery Point

The point where a transaction between Scheduling Coordinators is deemed to take place. It can be either the Generation input point, a Demand Take-Out Point, or a transmission bus at some intermediate Location.

Demand

The instantaneous amount of Power that is delivered to Loads and Scheduling Points by Generation, transmission or distribution facilities. It is the product of voltage and the in-phase component of alternating current measured in units of watts or standard multiples thereof, e.g., 1,000W=1kW, 1,000kW=1MW, etc.

Demand Bid

The Bid component in a Bid submitted in the DAM that indicates the MWh of Energy the Scheduling Coordinator is willing to purchase, the price at which it is willing to purchase the specified Energy and the applicable Trading Hours for the next day.

Demand Forecast

An estimate of Demand over a designated period of time.

Department of Market Monitoring

The department of the CAISO established under Appendix P.1.

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Derate Energy

Extra-marginal IIE, exclusive of Standard Ramping Energy, Ramping Energy Deviation, Residual Imbalance Energy, MSS Load Following Energy, and Real-Time Minimum Load Energy produced or consumed due to Minimum Load overrates or PMax derates. Derate Energy is produced above the higher of the Day-Ahead Schedule, the registered Minimum Load, or the HASP Intertie Schedule, and below the lower of the overrated Minimum Load and the Dispatch Operating Point, or consumed below the lower of the Day-Ahead Schedule or the HASP Intertie Schedule, and above the higher of the derated PMax or the Dispatch Operating Point. There could be two Derate Energy slices, one for the Minimum Load overrate, and one for the PMax derate. Derate Energy does not overlap with Standard Ramping Energy, Ramping Energy Deviation, Residual Imbalance Energy, Real-Time Minimum Load Energy, Exceptional Dispatch Energy, or Optimal Energy, but it may overlap with Day-Ahead Scheduled Energy, HASP Scheduled Energy, and MSS Load Following Energy. Derate Energy is settled as described in Section 11.5.1, and it is not included in BCR as described in Section 11.8.4.

Direct Access End-User

An Eligible Customer located within the Service Area of a Utility Distribution Company who purchases Energy and Ancillary Services through a Scheduling Coordinator.

Dispatch

The activity of controlling an integrated electric system to: i) assign specific Generating Units and other sources of supply to effect the supply to meet the relevant area Demand taken as Load rises or falls; ii) control operations and maintenance of high voltage lines, substations, and equipment, including administration of safety procedures; iii) operate interconnections; iv) manage Energy transactions with other interconnected Balancing Authority Areas; and v) curtail Demand.

Dispatch Instruction

An instruction by the CAISO for an action with respect to specific equipment, or to a resource for increasing or decreasing its Energy Supply or Demand from the Day-Ahead Schedule, RUC Schedule, and Day-Ahead AS Award to a specified Dispatch Operating Point pertaining to Real-Time operations.

Dispatch Interval

The Time Period, which may range between five (5) and thirty (30) minutes, over which the Real-Time Dispatch measures deviations in Generation and Demand, and selects Ancillary Service and supplemental energy resources to provide balancing Energy in response to such deviations. The Dispatch Interval shall be five (5) minutes. Following a decision by the CAISO Governing Board, the CAISO may, by seven (7) days' notice published on the CAISO Website, increase or decrease the Dispatch Interval within the range of five (5) to thirty (30) minutes.

Dispatch Interval LMP

The price of Imbalance Energy determined at each Dispatch Interval in accordance with Section 11.5.4.

Dispatch Operating Point

The expected operating point of a resource that has received a Dispatch Instruction. The resource is expected to operate at the Dispatch Operating Point after completing the Dispatch Instruction, taking into account any relevant Ramp Rate and time delays. Energy expected to be produced or consumed above or below the Day-Ahead Schedule in response to a Dispatch Instruction constitutes Instructed Imbalance Energy. For resources that have not received a Dispatch Instruction, the Dispatch Operating Point defaults to the corresponding Day-Ahead Schedule.

Distribution System Distribution Upgrades

The distribution assets of an IOU or Local Publicly Owned Electric Utility. The additions, modifications, and upgrades to the Participating TO's electric systems that are not part of the CAISO Controlled Grid. Distribution Upgrades do not include Interconnection Facilities.

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Dynamic Resource-Specific System Resource

DSHBAOA

A Dynamic System Resource that is a specific generation resource

Dynamic Scheduling Host Balancing Authority Operating Agreement

outside the CAISO Balancing Authority Area.

Dynamic Schedule A teleme

A telemetered reading or value which is updated in Real-Time and which is used as an Interchange Schedule in the CAISO Energy Management System calculation of Area Control Error and the integrated value of which is treated as an Interchange Schedule for Interchange accounting

purposes.

Dynamic Scheduling Host Balancing Authority Operating Agreement (DSHBAOA) An agreement entered into between the CAISO and a Host Balancing Authority governing the terms of dynamic scheduling between the Host Balancing Authority and the CAISO in accordance with the Dynamic Scheduling Protocol set forth in Appendix X, a pro forma version of

Dynamic System

E&P Agreement

Resource

A System Resource that has satisfied the CAISO's contractual and operational requirements for submitting a Dynamic Schedule, and for which a Dynamic Schedule has been submitted, including a Dynamic

Resource-Specific System Resource.

Engineering & Procurement Agreement

which agreement is set forth in Appendix B.9

ECA Embedded Control Area

Economic Bid A Bid that includes quantity (MWh) and price (\$) for specified Trading

Hours.

Economic Planning Study A study performed to provide a preliminary assessment of the potential

cost effectiveness of mitigating specifically identified Congestion.

EEP Electrical Emergency Plan

ELC Process Extremely Long-Start Commitment Process

Electrical Emergency Plan

(EEP)

A plan to be developed by the CAISO in consultation with Utility

Distribution Companies to address situations when Energy reserve

margins are forecast to be below established levels.

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Electric Facility An electric resource, including a Generating Unit, System Unit, or a

Participating Load.

Eligible Customer (i) any utility (including Participating TOs, Market Participants and any

> power marketer), Federal power marketing agency, or any person generating Energy for sale or resale; Energy sold or produced by such entity may be Energy produced in the United States, Canada or Mexico; however, such entity is not eligible for transmission service that would be prohibited by Section 212(h)(2) of the Federal Power Act; and (ii) any retail customer taking unbundled transmission service pursuant to a state retail access program or pursuant to a voluntary offer of unbundled

retail transmission service by the Participating TO.

Eligible Intermittent

A Generating Unit that is powered solely by 1) wind, 2) solar energy, or Resource 3) hydroelectric potential derived from small conduit water distribution

facilities that do not have storage capability.

ELS Resource Extremely Long-Start Resource

Embedded Control Area

(ECA)

A Control Area that has direct interconnections exclusively with the

CAISO Control Area, and no other Control Area.

Emissions Cost Demand

Emissions Cost Invoice

The level of Demand specified in Section 11.18.3. The invoice submitted to the CAISO in accordance with Section 11.18.6.

The mitigation fees, excluding capital costs, assessed against a

Generating Unit by a state or federal agency, including air quality

districts, for exceeding applicable NOx emission limitations.

Emissions Eligible

Emissions Costs

Generator

A Generator with a Generating Unit that is a BCR Eligible Resource.

EMS Energy Management System

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Encumbrance

A legal restriction or covenant binding on a Participating TO that affects the operation of any transmission lines or associated facilities and which the CAISO needs to take into account in exercising Operational Control over such transmission lines or associated facilities if the Participating TO is not to risk incurring significant liability. Encumbrances shall include Existing Contracts and may include: (1) other legal restrictions or covenants meeting the definition of Encumbrance and arising under other arrangements entered into before the CAISO Operations Date, if any; and (2) legal restrictions or covenants meeting the definition of Encumbrance and arising under a contract or other arrangement entered into after the CAISO Operations Date.

End-Use Customer or End-User A consumer of electric power who consumes such power to satisfy a Load directly connected to the CAISO Controlled Grid or to a Distribution System and who does not resell the power.

End-Use Meter

A metering device collecting Meter Data with respect to the Energy consumption of an End-User.

End-Use Meter Data

Meter Data that measures the Energy consumption in respect of End-Users gathered, edited and validated by Scheduling Coordinators and submitted to the CAISO in Settlement quality form.

Energy

The electrical energy produced, flowing or supplied by generation, transmission or distribution facilities, being the integral with respect to time of the instantaneous power, measured in units of watt-hours or standard multiples thereof, e.g., 1,000 Wh=1kWh, 1,000 kWh=1MWh, etc.

Energy Bid

A Demand Bid or an Energy Supply Bid.

Energy Bid Cost

An amount equal to the integral of the Energy Bid for resources that

have been selected through the IFM or RTM, above PMin.

Energy Bid Curve

The Bid component that indicates the prices and related quantity at which a resource offers Energy in a monotonically increasing (decreasing for Participating Load) staircase function, consisting of no more than 10 segments defined by 11 pairs of MW operating points and \$/MWh, which may be different for each Trading Hour of the applicable Bid time period. If the resource has Forbidden Operating Regions, each Forbidden Operating Region must be reflected as a single, separate Energy Bid Curve segment.

Energy Export

For purposes of calculating the Grid Management Charge, Energy included in an Interchange Schedule submitted to the CAISO, or dispatched by the CAISO, to serve a load located outside the CAISO's Balancing Authority Area, whether the Energy is produced by a Generator in the CAISO Balancing Authority Area or a resource located outside the CAISO Balancing Authority Area.

Energy Limit

The Bid component that indicates the maximum and minimum daily Energy limits for the Generating Unit.

Energy Management System (EMS)

A computer control system used by electric utility dispatchers to monitor the real-time performance of the various elements of an electric system and to control Generation and transmission facilities.

Energy Resource Area (ERA)

A geographic region certified by the California Public Utilities Commission and the California Energy Commission as an area in which multiple LCRIGs could be located, provided that, for the interim period before those agencies certify such areas and for LCRIFs that are proposed to connect LCRIGs located outside the State of California, an Energy Resource Area shall mean a geographic region that would be connected to the CAISO Controlled Grid by an LCRIF with respect to which the CAISO Governing Board determines that all of the requirements of Section 24.1.3 are satisfied, except for the requirement that the LCRIGs to which the LCRIF would connect are located in an area certified as an ERA by those agencies.

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Energy Supply Bid

The quantity (MWh) and a price (\$) at or above which a resource has agreed to sell the next increment of Energy for a specified interval of time.

Energy Transmission Services Net Energy Charge

The component of the Grid Management Charge that provides, in conjunction with the Energy Transmission Services Uninstructed Deviations Charge, for the recovery of the CAISO's costs of providing reliability on a scalable basis, i.e., a function of the intensity of the use of the transmission system within the Control Area and the occurrence of system outages and disruptions. The formula for determining the Energy Transmission Services Net Energy Charge is set forth in Appendix F, Schedule 1, Part A of this Tariff.

Energy Transmission Services Uninstructed Deviations Charge

The component of the Grid Management Charge that provides, in conjunction with the Energy Transmission Services Net Energy Charge, for the recovery of the CAISO's costs of providing reliability on a scalable basis, in particular for the costs associated with balancing transmission flows that result from uninstructed deviations. The formula for determining the Energy Transmission Services Uninstructed Deviations Charge is set forth in Appendix F, Schedule 1, Part A of this Tariff.

Engineering & Procurement (E&P) Agreement

An agreement that authorizes the Participating TO to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Entitlements

The right of a Participating TO obtained through contract or other means to use another entity's transmission facilities for the transmission of Energy.

Environmental Dispatch

Dispatch designed to meet the requirements of air quality and other environmental legislation and environmental agencies having authority or jurisdiction over the CAISO.

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ERA Energy Resource Area

Estimated Aggregate Liability

The sum of a Market Participant's or CRR Holder's known and reasonably estimated potential liabilities for a specified time period arising from charges described in the CAISO Tariff, as provided for in

Section 12.

Estimated RMR Invoice The monthly invoice issued by the RMR Owner to the CAISO for

estimated RMR Payments or RMR Refunds pursuant to the RMR

Contract.

E-Tag An electronic tag associated with an Interchange schedule in

accordance with the requirements of WECC.

ETC Existing Transmission Contract

ETC Self-Schedule A Self-Schedule submitted by a Scheduling Coordinator pursuant to

Existing Rights as reflected in the TRTC Instructions.

Exceptional Dispatch A Dispatch Instruction issued to avoid a Market Interruption for the

purposes specified in Section 34.9. Energy from Exceptional

Dispatches shall not set any Dispatch Interval LMP.

Exceptional Dispatch Energy

Extra-marginal IIE, exclusive of Standard Ramping Energy, Ramping Energy Deviation, Residual Imbalance Energy, MSS Load Following Energy, Real-Time Minimum Load Energy, and Derate Energy, produced or consumed due to Exceptional Dispatch Instructions that are

binding in the relevant Dispatch Interval. Without MSS Load following, Exceptional Dispatch Energy is produced above the LMP index and below the lower of the Dispatch Operating Point or the Exceptional Dispatch Instruction, or consumed below the LMP index and above the higher of the Dispatch Operating Point or the Exceptional Dispatch Instruction. The LMP index is the capacity in the relevant Energy Bid that corresponds to a Bid price equal to the relevant LMP. Exceptional Dispatch Energy does not overlap with Standard Ramping Energy, Ramping Energy Deviation, Residual Imbalance Energy, Real-Time Minimum Load Energy, Derate Energy, or Optimal Energy, but it may

overlap with Day-Ahead Scheduled Energy, HASP Scheduled Energy, and MSS Load Following Energy. Exceptional Dispatch Energy is settled as described in Section 11.5.6, and it is not included in BCR as

described in Section 11.8.4.

Exceptional Dispatch Instruction	A Dispatch Instruction issued pursuant to Exceptional Dispatch.
Excess Cost Payments	The payments made by the CAISO for costs associated with Exceptional
	Dispatches for 1) emergency conditions, to avoid Market Interruption
	and avoid an imminent System Emergency as provided in Section
	11.5.6.1.1; 2) transmission-related modeling limitations as provided in
	Section 11.5.6.2.3; 3) Condition 2 RMR Units as provided in Section
	11.5.6.3.2; and 4) emergency Energy as provided in Section 11.5.8.1.1.
Existing Contract Import Capability	The quantity of Available Import Capability reserved for Existing
	Contracts and Transmission Ownership Rights held by Load Serving
	Entities that serve Load within the CAISO Balancing Authority Area
	under Step 3 of Section 40.4.6.2.
Existing High Voltage Facility	A High Voltage Transmission Facility of a Participating TO that was
	placed in service on or before the TAC Transition Date described in
	Section 4.2 of Schedule 3 of Appendix F.
Existing QF Contract	An agreement for the sale of capacity, Energy, and/or Ancillary Services
	by a Participating Generator to an electric utility from a Qualifying
	Facility that became effective on or prior to December 20, 1995 or, in the
	case of a Participating Generator employing landfill gas technology, on
	or prior to December 31, 1996.
Existing Rights	The transmission service rights and obligations of non-Participating TOs
	under Existing Contracts, including all terms, conditions, and rates of the
	Existing Contracts, as they may change from time to time under the
	terms of the Existing Contracts.
Existing Transmission Contracts (ETC) or Existing Contracts	The contracts which grant transmission service rights in existence on the
	CAISO Operations Date (including any contracts entered into pursuant
	to such contracts) as may be amended in accordance with their terms or
	by agreement between the parties thereto from time to time.
Existing Zone	A region formerly referred to as NP15, SP15, or ZP26 prior to
	implementation of the CAISO LMP market design.

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Existing Zone Generation Trading Hub

Trading Hubs specifically developed to represent the average price paid to generation resources within Existing Zones.

Expanded System Region

The System Region and Intertie Scheduling Points with interconnected Balancing Authority Areas.

Expected Congestion Revenue

The mean value based on the probability distribution of the historic Congestion revenue of a CRR.

Expected Energy

The total Energy that is expected to be generated or consumed by a resource, based on the Dispatch of that resource, as calculated by the Real-Time Market (RTM), and as finally modified by any applicable Dispatch Operating Point corrections. Expected Energy includes the Energy scheduled in the IFM, and it is calculated the applicable Trading Day. Expected Energy is calculated for Generating Units, System Resources, Resource-Specific System Resources, and Participating Loads. The calculation is based on the Day-Ahead Schedule and the Dispatch Operating Point trajectory for the three-hour period around the target Trading Hour (including the previous and following hours), the applicable Real-Time LMP for each Dispatch Interval of the target Trading Hour, and any Exceptional Dispatch Instructions. Expected Energy is used as the basis for Settlements.

Export Bid

Exporting Participating Intermittent Resource

Extremely Long-Start Commitment Process (ELC Process)

Extremely Long-Start Resource (ELS Resource) A Demand Bid submitted to a CAISO Market at a Scheduling Point. A Participating Intermittent Resource with a PIR Export Percentage greater than zero (0).

The CAISO process for Unit Commitment for Extremely Long-Start Resources, as set forth in Section 31.7.

A Generating Unit that has a Start-Up Time greater than 18 hours or a System Resource that is either: 1) a non-Resource-Specific System Resource with contractual limitations that require the Energy be transacted (i.e., committed) prior to the publishing time of the Day-Ahead Market results (1300 hours on the day before the Trading Day) or 2) a Resource-Specific System Resource that has a Start-Up Time greater than 18 hours.

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FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 868

Facility Study An engineering study conducted by a Participating TO to determine

> required modifications to the Participating TO's transmission system, including the cost and scheduled completion date for such modifications

that will be required to provide needed services.

Facility Study Agreement An agreement between a Participating TO and either a Market

> Participant, Project Sponsor, or identified principal beneficiaries pursuant to which the Market Participants, Project Sponsor, and

identified principal beneficiaries agree to reimburse the Participating TO

for the cost of a Facility Study.

Facility Trust Account For each RMR Contract, the account established and operated by the

CAISO to and from which all payments under Section 11.13 shall be

made. Each Facility Trust Account will have two segregated commercial

bank accounts, an RMR Owner Facility Trust Account and a

Responsible Utility Facility Trust Account.

Fast Start Unit A Generating Unit that has a Start-Up Time less than two hours and can

be committed in the RTUC and STUC.

Feasibility Index A test used to evaluate whether a supplier or set of suppliers is pivotal in

relieving congestion on a transmission path for the purposes of

determining if a path is deemed to be competitive.

Fed-Wire The Federal Reserve Transfer System for electronic funds transfer.

FERC The Federal Energy Regulatory Commission or its successor.

FERC Annual Charge

Recovery Rate

The rate to be paid by Scheduling Coordinators for recovery of FERC Annual Charges assessed against the CAISO for transactions on the

CAISO Controlled Grid.

FERC Annual Charges Those charges assessed against a public utility by the FERC pursuant

to 18 C.F.R. § 382.201 and any related statutes or regulations, as they

may be amended from time to time.

FERC Annual Charge Trust Account

An account to be established by the CAISO for the purpose of

maintaining funds collected from Scheduling Coordinators for FERC

Annual Charges and disbursing such funds to the FERC.

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FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 869

Fifth Percentile Congestion Revenue The fifth percentile value based on the probability distribution of the

historic Congestion revenue of a CRR.

Final Approval A statement of consent by the CAISO Control Center to initiate a

scheduled Outage.

Final Invoice The invoice due from a RMR Owner to the CAISO at termination of the

RMR Contract.

Final NERC/WECC Charge

Invoice

A final invoice issued by the CAISO that reflects an allocation of

NERC/WECC Charges to a Scheduling Coordinator based on the Final NERC/WECC Charge Rate for the NERC/WECC Charge Assessment

Year.

Final NERC/WECC Charge

Rate

The rate to be paid by Scheduling Coordinators for NERC/WECC

Charges based on the WECC invoice to the CAISO for NERC/WECC Charges for a given year and on the NERC/WECC Metered Demand for

the NERC/WECC Charge Assessment Year.

Final Settlement Statement

The restatement or recalculation of the Preliminary Settlement Statement by the CAISO following the issue of that Preliminary

Settlement Statement.

Financial Security Any of the types of financial instruments listed in Section 12 that are

posted by a Market Participant, CRR Holder or Candidate CRR Holder.

Financial Security Amount The level of Financial Security posted in accordance with Section 12 by

a Market Participant, Candidate CRR Holder or CRR Holder.

Firm Liquidated Damages

Contract

A contract utilizing or consistent with Service Schedule C of the Western

Systems Power Pool Agreement or the Firm Liquidated Damages product of the Edison Electric Institute pro forma agreement, or any other similar firm Energy contract that does not require the seller to source the Energy from a particular unit, and specifies a delivery point

internal to the CAISO Balancing Authority Area.

Original Sheet No. 870

Fixed CRRs

Congestion Revenue Rights that are used in the running of an SFT to represent known encumbrances on the transmission system and which may include some or all of the following: previously allocated or awarded Monthly CRRs, Seasonal CRRs, Long Term CRRs, and Merchant Transmission CRRs, Existing Transmission Contracts, and Converted Rights.

FNM Full Network Model

Forbidden Operating Region

A pair of lower and higher operating levels between which a resource cannot operate stably. The Forbidden Operating Regions lie between a resource's Minimum Operating Limit and Maximum Operating Limit and cannot overlap.

Forced Outage An Outage for which sufficient notice cannot be given to allow the

Outage to be factored into the Day-Ahead Market, HASP or RTM

bidding processes.

Forecast Fee The charge imposed on a Participating Intermittent Resource pursuant

to the terms of Appendix F, Schedule 4.

Forward Scheduling Charge

The component of the Grid Management Charge that provides for the recovery of the CAISO's costs, including, but not limited to the costs of providing the ability to Scheduling Coordinators to submit a Bid for Energy and Ancillary Services and the cost of processing accepted Ancillary Services Bids. For purposes of the Forward

Scheduling Charge, a schedule is represented by each final HASP Schedule with a value other than 0 MW submitted to the scheduling infrastructure/scheduling application system (Import, Export, Load, Generation, Inter-SC Trades, and Ancillary Services, including self-provided Ancillary Services) submitted to the CAISO's Markets. The formula for determining the Forward Scheduling Charge is set forth in

Appendix F, Schedule 1, Part A of this Tariff.

FOURTH REPLACEMENT VOLUME NO. II

FPA Parts II and III of the Federal Power Act, 16 U.S.C. § 824 et seq., as

they may be amended from time to time.

Frequently Mitigated Unit A Generating Unit that is eligible for a Bid Adder pursuant to Section

39.8.

Full Network Model (FNM) A computer-based model that includes all CAISO Balancing Authority

Area transmission network (Load and Generating Unit) busses, transmission Constraints, and Intertie busses between the CAISO

Balancing Authority Area and interconnected Balancing Authority Areas.

Original Sheet No. 871

The FNM models the transmission facilities internal to the CAISO $\,$

Balancing Authority Area as elements of a looped network and models the CAISO Balancing Authority Area Interties with interconnected

Balancing Authority Areas in a radial fashion.

GADS Generating Availability Data System

GDF Generation Distribution Factor

Generated Bid A post-market Clean Bid generated by the CAISO in accordance with

the provisions of Section 40 or other applicable provisions of the CAISO Tariff when a Bid is not submitted by the Scheduling Coordinator and is required for a resource adequacy requirement, an Ancillary Services

Award, a RUC Award or a Day-Ahead Schedule.

Generation Energy delivered from a Generating Unit.

Generation Distribution

Factor (GDF)

The Bid template component that indicates the proportions of how the

Bid is distributed for the resources participating in Physical Scheduling

Plants or System Units.

Generating Facility An Interconnection Customer's Generating Unit(s) used for the

production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection

Facilities.

Generating Facility Capacity

The net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Generating Unit

An individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered or a Physical Scheduling Plant that, in either case, is:

- (a) located within the CAISO Balancing Authority Area;
- (b) connected to the CAISO Controlled Grid, either directly or via interconnected transmission, or distribution facilities; and
- (c) that is capable of producing and delivering net Energy (Energy in excess of a generating station's internal power requirements).

Generator

The seller of Energy or Ancillary Services produced by a Generating Unit.

GMC

Grid Management Charge

Good Utility Practice

Any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act section 215(a)(4).

Grid Management Charge (GMC)

The CAISO monthly charge on all Scheduling Coordinators that provides for the recovery of the CAISO's costs listed in Section 11.22.2 through the eight service charges described in Section 11.22.2.5 calculated in accordance with the formula rate set forth in Appendix F. Schedule 1. Part A of this Tariff. The eight charges that comprise the Grid Management Charge consist of: 1) the Core Reliability Services -Demand Charge, 2) the Core Reliability Services – Energy Exports Charge, 3) the Energy Transmission Services Net Energy Charge, 4) the Energy Transmission Services Uninstructed Deviations Charge, 5) the Forward Scheduling Charge, 6) the Congestion Management Charge, 7) the Market Usage Charge, and 8) the Settlements, Metering, and Client Relations Charge.

Gross Load

For the purposes of calculating the transmission Access Charge, Gross Load is all Energy (adjusted for distribution losses) delivered transmission facilities or directly connected to the Distribution System of a Utility Distribution Company or MSS Operator located in a PTO Service Territory. Gross Load shall exclude (1) Load with respect to which the Wheeling Access Charge is payable, (2) Load that is exempt from the Access Charge pursuant to Section 4.1, Appendix I, and the portion of the Load of an individual retail customer of a Utility Distribution Company, Small Utility Distribution Company or MSS Operator that is served by a Generating Unit that: (a) is located on the customer's site or provides service to the customers site through arrangements as authorized by Section 218 of the California Public Utilities Code; (b) is a qualifying small power production facility or qualifying cogeneration facility, as those terms are defined in the FERC's regulations implementing Section 201 of the Public Utility Regulatory Policies Act of 1978; and (c) secures Standby Service from a Participating TO under terms approved by a Local Regulatory Authority or FERC, as applicable, or can be curtailed concurrently with an Outage of the Generating Unit serving the Load. Gross Load forecasts consistent with filed Transmission Revenue Requirements will be provided by each Participating TO to the CAISO.

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FOURTH REPLACEMENT VOLUME NO. II Original Sheet No. 874

HASP Hour-Ahead Scheduling Process

HASP Advisory Schedule The non-binding output of the HASP as it pertains to the Real-Time

Market.

HASP and RTM Congestion Credit

A credit provided to Scheduling Coordinators to offset any HASP and RTM Congestions Charges that would otherwise be applied to the valid and balanced portions of any ETC or TOR Self-Schedules in the HASP

and the Real-Time Market as provided in Section 11.5.7.

HASP AS Award HASP Bid

Awards for imports of Ancillary Services established through the HASP. A Bid received in HASP that can be used in the MPM-RRD conducted in

HASP, the RTUC, STUC, or the RTD.

Uplift Obligations.

HASP Inter-SC Trade Period

The period commencing at midnight (0000 hours) on the applicable Trading Day and ending at forty-five (45) minutes prior to the start of the applicable Operating Hour, during which time the CAISO will accept from Scheduling Coordinators Inter-SC Trades of Energy for the HASP, Inter-SC Trades of Ancillary Services, and Inter-SC Trades of IFM Load

HASP Intertie LMP
HASP Intertie Schedule

The average of four (4) 15-minute interval LMPs over a Trading Hour.

The binding output of the HASP including accepted Bids for imported

Energy or Ancillary Services and associated LMPs and ASMPs.

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HASP Scheduled Energy

IIE from a Non-Dynamic System Resource, exclusive of Real-Time Pumping Energy and Real-Time Minimum Load Energy, produced or consumed due to hourly scheduling in the HASP. HASP Scheduled Energy is produced above the higher of the Day-Ahead Schedule or the Minimum Load, and below the HASP Intertie Schedule, or consumed below the Day-Ahead Schedule and above the HASP Intertie Schedule. In the latter case, HASP Scheduled Energy overlaps with Day-Ahead Scheduled Energy; HASP Scheduled Energy does not overlap with Real-Time Pumping Energy or Real-Time Minimum Load Energy, but it may overlap with other IIE subtypes. HASP Scheduled Energy is indexed against the relevant Energy Bid and sliced by service type, depending on the Ancillary Services capacity allocation on the Energy Bid, and by Energy Bid price. HASP Scheduled Energy slices are settled as described in Section 11.4, and they are included in BCR as reflected in Section 11.8.4; provided that if any HASP Scheduled Energy slice below or above the Energy Bid has no associated Energy Bid price, it is not included in BCR as described in Section 11.8.4. For Non-Dynamic System Resources that are designated as MSS Load following resources, HASP Scheduled Energy is considered as MSS Load Following Energy.

Henry Hub

The pricing point for natural gas futures contracts traded on the New York Mercantile Exchange (NYMEX).

High Priority Economic Planning Study

An Economic Planning Study performed by the CAISO for inclusion in the Transmission Plan and for which the CAISO assumes cost responsibility.

High Voltage Access Charge (HVAC)

The Access Charge applicable under Section 26.1 to recover the High Voltage Transmission Revenue Requirements of each Participating TO in a Transmission Access Charge Area.

High Voltage Transmission Facility

A transmission facility that is owned by a Participating TO or to which a Participating TO has an Entitlement that is represented by a Converted Right, that is under the CAISO Operational Control, and that operates at a voltage at or above 200 kilovolts, and supporting facilities, and the costs of which are not directly assigned to one or more specific customers, provided that the High Voltage Transmission Facilities of a Participating TO shall include any Location Constrained Resource Interconnection Facility of that Participating TO that has been turned over to the CAISO's Operational Control.

High Voltage Transmission Revenue Requirement (HVTRR)

The portion of a Participating TO's Transmission Revenue Requirement associated with and allocable to the Participating TO's High Voltage Transmission Facilities and Converted Rights associated with High Voltage Transmission Facilities that are under the CAISO Operational Control.

High Voltage Utility Specific Rate

A Participating TO's High Voltage Transmission Revenue Requirement divided by such Participating TO's forecasted Gross Load.

High Voltage Wheeling Access Charge

The Wheeling Access Charge associated with the recovery of a Participating TO's High Voltage Transmission Revenue Requirements in accordance with Section 26.1.

Host Balancing Authority Host Balancing Authority Area

The Balancing Authority for a Host Balancing Authority Area.

The Balancing Authority Area in which a System Resource subject to this CAISO Tariff is connected to the electric grid. The Host Balancing Authority Area may, or may not, be directly interconnected with the CAISO Balancing Authority Area.

Hour-Ahead Scheduling Process (HASP)

The process conducted by the CAISO beginning at seventy-five minutes prior to the Trading Hour through which the CAISO conducts the following activities: 1) accepts Bids for Supply of Energy, including imports, exports and Ancillary Services imports to be supplied during the next Trading Hour that apply to the MPM-RRD, RTUC, STUC, and RTD; 2) conducts the MPM-RRD on the Bids that apply to the RTUC, STUC, and RTD; and 3) conducts the RTUC for the hourly pre-dispatch of

Energy and Ancillary Services.

Hourly Demand The average of the instantaneous Demand integrated over a single

clock hour, in MWh.

Hourly Real-Time LAP

Price

The load deviation weighted average of the hourly average of the

Dispatch Interval LMPs for the LAP in the relevant Trading Hour used for

the settlement of UIE.

HVAC High Voltage Access Charge

HVTRR High Voltage Transmission Revenue Requirement

Hydro Spill Generation Hydro-electric Generation in existence prior to the CAISO Operations

Date that: i) has no storage capacity and that, if backed down, would

spill; ii) has exceeded its storage capacity and is spilling even though the

generators are at full output; iii) has inadequate storage capacity to prevent loss of hydro-electric Energy either immediately or during the forecast period, if hydro-electric Generation is reduced; or iv) has increased regulated water output to avoid an impending spill.

IBAAOA Interconnected Balancing Authority Area Operating Agreement

ICAOA Interconnected Control Area Operating Agreement

Identification Code An identification number assigned to each Scheduling Coordinator by

the CAISO.

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FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 878

IFM Integrated Forward Market

IFM Bid Cost The sum of a BCR Eligible Resource's IFM Start-Up Cost, IFM Minimum

Load Cost, IFM Pump Shut-Down Cost, IFM Pumping Cost, IFM Energy

Bid Cost, and IFM AS Bid Cost.

IFM Bid Cost Shortfall For each Settlement Interval, for any BCR Eligible Resource, the

positive amount resulting from the difference between the IFM Bid Cost

and the IFM Market Revenue.

IFM Bid Cost Surplus For each Settlement Interval, for any BCR Eligible Resource, the

negative amount resulting from the difference between the IFM Bid Cost

and the IFM Market Revenue.

IFM Bid Cost Uplift The system-wide net of the IFM Bid Cost Shortfalls and IFM Bid Cost

> Surpluses for a Settlement Interval of all BCR Eligible Resources with Unrecovered Bid Cost Uplift Payments. This amount will be netted according to Section 11.8.6.2 to calculate the Net IFM Bid Cost Uplift

before allocation to Scheduling Coordinators.

IFM Commitment Period A Commitment Period determined by the IFM.

The Congestion Charge calculated by the CAISO for each Settlement **IFM Congestion Charge**

Period of the IFM as the IFM MCC for Demand minus the IFM MCC for

Supply.

IFM Congestion Credit A credit provided to Scheduling Coordinators to offset any IFM

> Congestions Charges that would otherwise be applied to the valid and balanced portions of any ETC, TOR or Converted Rights Self-Schedule

in the IFM as provided in Section 11.2.1.5.

IFM Congestion Fund The funds the CAISO shall have available in each Settlement Period

> from which the CAISO will pay CRR Holders for the CRR(s) they hold in any Settlement Period, which shall determined as provided in Section

11.2.4.1.2.

IFM Load Uplift Obligation The obligation of a Scheduling Coordinator to pay its share of

unrecovered IFM Bid Costs paid to resources through Bid Cost

Recovery.

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IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules A credit provided to Scheduling Coordinators pursuant to Section 17.3.3 to offset any IFM Marginal Cost of Losses that would otherwise be applied to the valid and balanced portions of any TOR Self-Schedule in the IFM as provided in Section 11.2.1.5.

IFM Marginal Losses Surplus For each Settlement Period of the IFM the CAISO, the IFM Marginal Losses Surplus is the difference between: (1) the Net Hourly Energy Charge; and (2) the total IFM Congestion Charges which do not include Congestion Charges Credits collected by the CAISO as specified in Section 11.2.1.5.

IFM Marginal Losses Surplus Credit

IFM Market Revenue

The amount of money distributed to Scheduling Coordinators in the allocation of IFM Marginal Losses Surplus in proportion to Scheduling Coordinator's Measured Demand in accordance with Section 11.2.1.6. The amount received by BCR Eligible Resource from Energy scheduled and Ancillary Services awarded in the IFM for the purposes of Bid Cost Recovery, as calculated pursuant to Section 11.8.2.2.

IFM MSS Price

Either (1) The IFM LAP price for the MSS when the MSS scheduled internal Demand exceeds the MSS scheduled internal Supply; or (2) the weighted average of the IFM LMPs for all applicable PNodes within the relevant MSS when MSS scheduled internal Supply exceeds MSS scheduled internal Demand where weighting factors for computing the weighted average are based on the scheduled Supply at the corresponding PNodes.

IFM Pumping Bid Cost

For the applicable Settlement Interval, the Pumping Cost submitted to the CAISO in the IFM divided by the number of Settlement Intervals in a Trading Hour as further provided in Section 11.8.2.1.4.

IFM Self-Commitment Period

A Time Period determined by the CAISO pursuant to the rules in Section 11.8.1.1 for the purposes of deriving any Bid Cost Recovery amounts, related to the IFM.

FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 880

IIE Instructed Imbalance Energy

IIE Settlement AmountThe payment due a Scheduling Coordinator for positive Instructed

Imbalance Energy or the charge assessed on a Scheduling Coordinator for negative Instructed Imbalance Energy, as calculated pursuant to

Section 11.5.1.

Imbalance Energy The deviation of Supply or Demand from Day-Ahead Schedule, positive

or negative, as measured by metered Generation, metered Load, or

Real-Time Interchange Schedules.

Import Bid A Supply Bid submitted to a CAISO Market at a Scheduling Point.

Import Capability Load

Share

A Load Serving Entity's proportionate share of the forecasted Resource

Adequacy Compliance Year coincident peak Demand for the CAISO Balancing Authority Area relative to the total coincident peak Demand for the CAISO Balancing Authority Area as determined by the California

Energy Commission.

Import Capability Load

Share Ratio

A Load Serving Entity's Import Capability Load Share divided by the sum of the Import Capability Load Shares of all Load Serving Entities with unfulfilled requests for Available Import Capability on a particular

Intertie.

Import Capability Transfer Registration Process

The electronic means by which Load Serving Entities and Market

Participants must register with the CAISO any bilateral transfers of Existing Contract Import Capability, Pre-RA Import Commitment

Capability, or Remaining Import Capability.

Incremental Change The change in dollar value of a specific Charge Code from the Initial

Settlement Statement T+33BD to the Initial Settlement Statement,

Reissue or Recalculation Settlement Statement including any new

Initial Settlement Statement, Reissue or Recalculation Settlement

Charge Codes or Trading Day charges appearing for the first time on the

Statement.

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FOURTH REPLACEMENT VOLUME NO. II

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Independent Entity The entity, not affiliated with the CAISO or any Market Participant, that

assists the CAISO in the determination of reference prices.

Independent System Operator (ISO)

See California Independent System Operator Corporation.

Information System (OASIS)

CAISO maintains on the CAISO Website that allows all transmission

customers to view the data simultaneously.

Initial Settlement Statement Reissue The reissue of an Initial Settlement Statement T+38BD by the CAISO on

the fifty-first (51st) Business Day from the relevant Trading Day

(T+51BD) if T+51BD falls on a calendar day that is on or before the day the Invoice or Payment Advice for the bill period containing the relevant

Trading Day is scheduled to publish.

Initial Settlement Statement T+38BD A Settlement Statement generated by the CAISO for the calculation of Settlements for a given Trading Day, which is published on the thirtyeight Business Day from the relevant Trading Day (T+38BD) and is prior to the Invoice or Payment Advice published for the relevant bill period.

In-Service Date The date upon which the Interconnection Customer reasonably expects

it will be ready to begin use of the Participating TO Interconnection

Facilities to obtain back feed power.

Instructed Imbalance Energy (IIE)

The portion of Imbalance Energy resulting from Dispatch Instructions

and HASP Intertie Schedules.

Integrated Forward Market (IFM)

The pricing run conducted by the CAISO using SCUC in the Day-Ahead Market, after the MPM-RRD process, which includes Unit Commitment,

Ancillary Service procurement, Congestion Management and Energy

procurement based on Supply and Demand Bids.

Interchange Imports and exports between the CAISO Balancing Authority Area and

other Balancing Authority Areas.

Interchange Schedule A final agreed-upon schedule of Energy to be transferred between the

CAISO Control Balancing Authority Area and another Balancing

Authority Area.

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Interconnected Balancing Authority Area Operating Agreement (IBAAOA) An agreement entered into between the CAISO and a Balancing Authority of a Balancing Authority Area interconnected to the CAISO Balancing Authority Area to govern operation of their interconnected electric systems, a pro forma version of which has been accepted by FERC as a CAISO rate schedule in 87 FERC ¶ 61,231 (1999).

Interconnected Control Area Operating Agreement (ICAOA) Operator of a Control Area interconnected to the CAISO Area to govern operation of their interconnected electric systems, a *pro forma* version of which has been accepted by FERC as a CAISO rate schedule in 87 FERC ¶ 61,231 (1999).

Interconnection

Transmission facilities, other than additions or replacements to existing facilities that: i) connect one system to another system where the facilities emerge from one and only one substation of the two systems and are functionally separate from the CAISO Controlled Grid facilities such that the facilities are, or can be, operated and planned as a single facility; or ii) are identified as radial transmission lines pursuant to contract; or iii) produce Generation at a single point on the CAISO Controlled Grid; provided that such interconnection does not include facilities that, if not owned by the Participating TO, would result in a reduction in the CAISO's Operational Control of the Participating TO's portion of the CAISO Controlled Grid.

Interconnection Agreement

A contract between a party requesting interconnection and the Participating TO that owns the transmission facility with which the requesting party wishes to interconnect.

Interconnection Customer

Any entity, including a Participating TO or any of its Affiliates or subsidiaries, that proposes to interconnect its Generating Facility with the CAISO Controlled Grid.

Interconnection Customer's Interconnection Facilities

All facilities and equipment, as identified in Part A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the CAISO Controlled Grid. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities

The Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the CAISO Controlled Grid. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Facilities Study

A study conducted by the Participating TO(s), CAISO, or a third party consultant for the Interconnection Customer to determine a list of facilities (including the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades), the cost of those facilities, and the time required to interconnect the Generating Facility with the CAISO Controlled Grid. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement

The form of agreement accepted by FERC and posted on the CAISO Website for conducting the Interconnection Facilities Study.

Interconnection Feasibility Study

A preliminary evaluation conducted by the Participating TO(s), CAISO, or a third party consultant for the Interconnection Customer of the system impact and cost of interconnecting the Generating Facility to the CAISO Controlled Grid, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures.

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Interconnection Feasibility Study Agreement

The form of agreement accepted by FERC and posted on the CAISO Website for conducting the Interconnection Feasibility Study.

Interconnection Handbook

A handbook, developed by the Participating TO and posted on the Participating TO's website or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO's portion of the CAISO Controlled Grid, as such handbook may be modified or superseded from time to time. Participating TO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and Applicable Reliability Criteria. In the event of a conflict between the terms of the LGIP or SGIP and the terms of the Participating TO's Interconnection Handbook, the terms in the LGIP or SGIP shall apply.

Interconnection Request

An Interconnection Customer's request, in the form of Part 1 to the Standard Large Generator Interconnection Procedures or Attachment 2 to the Small Generator Interconnection Procedures, in accordance with Section 25.1.

Interconnection Service

The service provided by the Participating TO and CAISO associated with interconnecting the Interconnection Customer's Generating Facility to the CAISO Controlled Grid and enabling it to receive electric Energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement, the Participating TO's TO Tariff, and the CAISO Tariff.

Interconnection Study

Any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

Interconnection System Impact Study

An engineering study conducted by the Participating TO(s), CAISO, or a third party consultant for the Interconnection Customer that evaluates the impact of the proposed interconnection on the safety and reliability of the CAISO Controlled Grid and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

Interconnection System Impact Study Agreement

Interest

The form of agreement accepted by FERC and posted on the CAISO Website for conducting the Interconnection System Impact Study. Interest shall be calculated in accordance with the methodology specified for interest on refunds in the regulations of FERC at 18 C.F.R. §35.19(a)(2)(iii) (1996). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment, except as provided in Section 11.29.13.1. When payments are made by mail, bills shall be considered as having been paid on the date of receipt.

Interim Black Start Agreement

An agreement entered into between the CAISO and a Participating Generator (other than a Reliability Must-Run Agreement) for the provision by the Participating Generator of Black Start capability and Black Start Energy on an interim basis until the introduction by the CAISO of its Black Start auction (or until terminated earlier by either party in accordance with its terms).

Intermediary Balancing Authority

The Balancing Authority that operates an Intermediary Balancing Authority Area.

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Intermediary Balancing Authority Area

Any Balancing Authority Area between a Host Balancing Authority Area and the CAISO Balancing Authority Area. An Intermediary Balancing Authority Area may, or may not, be directly interconnected with the

CAISO Balancing Authority Area.

Interruptible Imports Non-firm Energy sold by a Generator or resource located outside the

> CAISO Controlled Grid which by contract can be interrupted or reduced at the discretion of the seller. Interruptible Imports must be submitted

through Self-Schedules in the Day-Ahead Market.

Inter-SC Trade A trade between Scheduling Coordinators of Energy, Ancillary Services,

or IFM Load Uplift Obligation in accordance with the CAISO Tariff.

Intertie A Scheduling Point at a point of interconnection between the CAISO

Balancing Authority Area and an interconnected Balancing Authority

Area.

Intertie Block Bid A Bid from a System Resource in the DAM that offers the same quantity

of Energy, RUC Availability, or Ancillary Services across multiple,

contiguous hours of the Trading Day.

Invoice A document published as a result of an invoicing run pursuant to the

CAISO Payments Calendar in which a Business Associate's current net

financial obligation is a positive Settlement amount.

IOU An investor owned electric utility. ISO Independent System Operator

Joint Powers Agreement An agreement governing a Joint Powers Authority that is subject to the

California Joint Exercise of Powers Act (California Government Code,

Section 6500, et seq.).

Joint Powers Authority An authority authorized by law through which two or more public entities

jointly exercise their powers.

LAP Load Aggregation Point

LAP Price The marginal price for a particular LAP, calculated as a weighted

average of the nodal LMPs at the associated PNodes pursuant to

Section 27.2.2.

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than 20 MW.

Large Generator Interconnection Agreement (LGIA)

Standard Large Generator Interconnection Agreement

Large Generator Interconnection Procedures (LGIP) Standard Large Generator Interconnection Procedures

LCRIF Location Constrained Resource Interconnection Facility

LCRIG Location Constrained Resource Interconnection Generator

LDF Load Distribution Factor

LFDP Load Following Deviation Penalty

LGIA Standard Large Generator Interconnection Agreement or Large

Generator Interconnection Agreement

LGIP Standard Large Generator Interconnection Procedures or Large

Generator Interconnection Procedures

Line Loss Correction

Factor

The line loss correction factor as set forth in the Technical

Specifications.

LMP Locational Marginal Price

LMPM Local Market Power Mitigation

LMP Option A method of calculating Default Energy Bids based on Locational

Marginal Prices.

Load An end-use device of an End-Use Customer that consumes Power.

Load should not be confused with Demand, which is the measure of

Power that a Load receives or requires.

Load Aggregation Point

(LAP)

A set of Pricing Nodes as specified in Section 27.2 that are used for the

submission of Bids and Settlement of Demand.

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Load Distribution Factor (LDF)

A number that reflects the relative amount of Load at each PNode within a Load Aggregation Point. Load Distribution Factors determine how the aggregated Load at a given LAP is distributed to the associated power system Nodes. The sum of all Load Distribution Factors for a single Load Aggregation Point equals one.

Load Following Deviation Penalty (LFDP)

The penalty assignable to an MSS Operator for deviations from

Expected Energy outside the MSS Deviation Band.

Load Metric A Load Serving Entity's level of Load in megawatts for a defined time period that is exceeded in only 0.5% of the hours of that time period

based on historical or forecast Load data.

Load Migration The transfer of the responsibility to serve Load from one Load Serving

Entity to another.

Load Serving Entity (LSE) Any entity (or the duly designated agent of such an entity, including, e.g.

> a Scheduling Coordinator), including a load aggregator or power marketer, that (a) (i) serves End Users within the CAISO Balancing Authority Area and (ii) has been granted authority or has an obligation pursuant to California state or local law, regulation, or franchise to sell electric energy to End Users located within the CAISO Balancing Authority Area: (b) is a federal power marketing authority that serves End Users; or (c) is the State Water Resources Development System

commonly known as the State Water Project of the California

Department of Water Resources.

Load Share Quantity The product of Total Import Capability and Import Capability Load

Share.

Load Shedding The systematic reduction of system Demand by temporarily decreasing

the Supply of Energy to Loads in response to transmission system or

area capacity shortages, system instability, or voltage control

considerations.

Local Capacity Area Transmission constrained area as defined in the study referenced in

Section 40.3.1.

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Local Capacity Area Resources

Resource Adequacy Capacity from a Generating Unit listed in the technical study or Participating Load that is located within a Local Capacity Area capable of contributing toward the amount of capacity required in a particular Local Capacity Area.

Local Capacity Technical Study The study performed by the CAISO pursuant to Section 40.3.

Local Furnishing Bond

Tax-exempt bonds utilized to finance facilities for the local furnishing of electric energy, as described in section 142(f) of the Internal Revenue Code, 26 U.S.C. § 142(f).

Local Furnishing Participating TO

Any Tax-Exempt Participating TO that owns facilities financed by Local Furnishing Bonds.

Local Market Power Mitigation (LMPM)

The mitigation of market power that could be exercised by an entity when it is needed for local reliability services due to its location on the grid and a lack of competitive supply at that location pursuant to Section 39.7.

Local Publicly Owned Electric Utility

A municipality or municipal corporation operating as a public utility furnishing electric services, a municipal utility district furnishing electric services, a public utility district furnishing electric services, an irrigation district furnishing electric services, a state agency or subdivision furnishing electric services, a rural cooperative furnishing electric services, or a Joint Powers Authority that includes one or more of these agencies and that owns Generation or transmission facilities, or furnishes electric services over its own or its members' electric Distribution System.

Local Regulatory Authority (LRA) The state or local governmental authority, or the board of directors of an electric cooperative, responsible for the regulation or oversight of a utility.

Local Reliability Criteria

Reliability Criteria unique to the transmission systems of each of the Participating TOs established at the later of: (1) CAISO Operations Date, or (2) the date upon which a New Participating TO places its facilities under the control of the CAISO.

Location

Location Code

A reference to either a PNode or an Aggregated Pricing Node. The code assigned by the CAISO to Generation input points, and Demand Take-Out Points from the CAISO Controlled Grid, and transaction points from trades between Scheduling Coordinators. This will be the information used by the CAISO Controlled Grid, and transaction points for trades between Scheduling Coordinators. This will be the information used by the CAISO to determine the location of the input, output, and trade points of Energy Schedules. Each Generation input and Demand Take-Out Point will have a designated Location Code identification.

Location Constrained Resource Interconnection Facility (LCRIF) A High Voltage Transmission Facility that has been determined by the CAISO to satisfy all of the requirements of Section 24.1.3.

Location Constrained Resource Interconnection Generator (LCRIG) A Generating Unit that (a) uses a primary fuel source or source of energy that is in a fixed location and cannot practicably be transported from that location; and (b) is located in an Energy Resource Area. Generating Units meeting criterion (a) shall include, but not be limited to, wind, solar, geothermal, hydroelectric, digester gas, landfill gas, ocean wave and ocean thermal tidal current Generating Units.

Locational Marginal Price (LMP)

The marginal cost (\$/MWh) of serving the next increment of Demand at that PNode consistent with existing transmission facility Constraints and the performance characteristics of resources.

Long Start Unit

A Generating Unit that requires between five and 18 hours to Start-Up and synchronize to the grid.

Long Term Congestion Revenue Right (Long Term CRR)

A Congestion Revenue Right differentiated by season and time-of-use period (on-peak and off-peak) with a term of ten years.

Low Voltage Access Charge (LVAC)

The Access Charge applicable under Section 26.1 to recover the Low Voltage Transmission Revenue Requirement of a Participating TO.

A transmission facility owned by a Participating TO or to which a

Low Voltage Transmission Facility

A transmission facility owned by a Participating TO or to which a Participating TO has an Entitlement that is represented by a Converted Right, which is not a High Voltage Transmission Facility, that is under the CAISO Operational Control.

Low Voltage Transmission Revenue Requirement (LVTRR) The portion of a Participating TO's TRR associated with and allocable to the Participating TO's Low Voltage Transmission Facilities and Converted Rights associated with Low Voltage Transmission Facilities that are under the CAISO Operational Control.

Low Voltage Wheeling Access Charge

The Wheeling Access Charge associated with the recovery of a Participating TO's Low Voltage Transmission Revenue Requirement in accordance with Section 26.1.

LRA Local Regulatory Authority

LSE Load-Serving Entity

LVAC Low Voltage Access Charge

LVTRR Low Voltage Transmission Revenue Requirement

Maintenance Outage

A period of time during which an Operator (i) takes its transmission facilities out of service for the purposes of carrying out routine planned maintenance, or for the purposes of new construction work or for work on de-energized and live transmission facilities (e.g., relay maintenance or insulator washing) and associated equipment; or (ii) limits the capability of or takes its Generating Unit or System Unit out of service for the purposes of carrying out routine planned maintenance, or for the purposes of new construction work.

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Manual RMR Dispatch An RMR Dispatch Notice issued by the CAISO other than as a result of

the MPM-RRD process.

Marginal Cost of Congestion (MCC)

The component of LMP at a PNode that accounts for the cost of congestion, as measured between that Node and a Reference Bus.

Marginal Cost of Losses (MCL)

The component of LMP at a PNode that accounts for the marginal real power losses, as measured between that Node and a Reference Bus.

Marginal Losses The transmission system marginal real power losses that arise from

changes in demand at a Node which are served by changes in

generation at a Reference Bus.

Market Behavior Rules

Those rules established by FERC under Docket No. EL01-118.

The act of conducting any of the process used by the CAISO to

Market Clearing

determine LMPs, Day-Ahead Schedules, RUC Awards or AS Awards, HASP Intertie Schedules and Dispatch Instructions based on Supply

Bids and Demand Bids or CAISO Demand Forecast.

Market Clearing Price The price in a market at which supply equals demand. All demand

prepared to pay at least this price has been satisfied and all supply prepared to operate at or below this price has been purchased.

Market Close The time after which the CAISO is no longer accepting Bids for its

CAISO Markets which: 1) for the DAM is 10:00 A.M. Pacific Time of the Day-Ahead; and 2) for the HASP and the RTM is approximately seventy-

five minutes prior to the Operating Hour.

Market Interruption The disruption of the normal operations of a CAISO Market.

Market Intervention An action taken by the CAISO to override or augment the operation of a

CAISO Market.

Market Manipulation Has the meaning set forth in Section 37.7.

Market Monitoring Unit The component of the CAISO organization (currently the "Department of

Market Monitoring") that is assigned responsibility in the first instance for the functions of a Market Monitoring Unit, as that term is used in Docket

No. EL01-118.

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Market Notice An electronic notice issued by the CAISO that the CAISO posts on the

CAISO Website and provides by e-mail to those registered with the

CAISO to receive CAISO e-mail notices.

Market Participant An entity, including a Scheduling Coordinator, who either: (1)

participates in the CAISO Markets through the buying, selling,

transmission, or distribution of Energy, Capacity, or Ancillary Services into, out of, or through the CAISO Controlled Grid; or (2) is a CRR

Holder or Candidate CRR Holder.

Market Power Mitigation-Reliability Requirement Determination (MPM-RRD) The two-optimization run process conducted in both the Day-Ahead

Market and the HASP that determines the need for the CAISO to employ

market power mitigation measures or Dispatch RMR Units.

Market Surveillance Committee (MSC) The committee established under Appendix P.2.

Market Usage Charge

The component of the Grid Management Charge that provides for the recovery of the CAISO's costs, including, but not limited to the costs for processing Bids, maintaining the Open Access Same-Time Information System, monitoring market performance, ensuring generator compliance

with market rules as defined in the CAISO Tariff and the Business

Practice Manuals, and determining LMPs. The formula for determining the Market Usage Charge is set forth in Appendix F, Schedule 1, Part

Aof this Tariff.

Master File A file containing information regarding Generating Units, Loads and

other resources, or its successor.

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Material Change in **Financial Condition**

A change in or potential threat to the financial condition of a Market Participant or CRR Holder that increases the risk that the Market Participant or CRR Holder will be unlikely to meet some or all of its financial obligations. The types of Material Change in Financial Condition include but are not limited to the following:

- (a) a credit agency downgrade;
- (b) being placed on a credit watch list by a major rating agency;
- (c) a bankruptcy filing;
- (d) insolvency;
- (e) the filing of a material lawsuit that could significantly and adversely affect past, current, or future financial results; or
- (f) any change in the financial condition of the Market Participant or CRR Holder which exceeds a five percent (5%) reduction in the Market Participant's or CRR Holder's Tangible Net Worth or Net Assets for the Market Participant or CRR Holder's preceding fiscal year, calculated in accordance with generally accepted accounting practices.

Material Modification

A modification that has a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

Maximum Daily Start-Ups

The maximum number of times a Generating Unit can be started up within one day, due to environmental or physical operating constraints. A quantity in MW determined by the CAISO for each Intertie into the CAISO Balancing Authority Area to be deliverable to the CAISO Balancing Authority Area based on CAISO study criteria.

Capability

(MOL_{max})

Maximum Import

Maximum Net Dependable Capacity (MNDC)

Maximum Operating Limit

A term defined in and used in association with an RMR Contract.

The lower of the maximum allowable output when the resource is operating or the upper bound of the Regulating Range if the resource is providing Regulation service.

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MCC Marginal Cost of Congestion

MCL Marginal Cost of Losses

MDT Minimum Down Time

Measured Demand The metered CAISO Demand plus Real-Time Interchange Export

Schedules.

Medium Start Unit A Generating Unit that requires between two and five hours to Start-Up

and synchronize to the grid.

Merchant Transmission

CRRs

Incremental CRRs that are created by the addition of a Merchant

Transmission Facility. Merchant Transmission CRRs are effective for thirty (30) years or for the pre-specified intended life of the facility,

whichever is less.

Merchant Transmission

Facility

A transmission facility or upgrade that is part of the CAISO Controlled

Grid and whose costs are paid by a Project Sponsor that does not recover the cost of the transmission investment through the CAISO's Access Charge or WAC or other regulatory cost recovery mechanism.

Meter Data Energy usage data collected by a metering device or as may be

otherwise derived by the use of Approved Load Profiles.

Meter Data Exchange

Format

A format for submitting Meter Data to the CAISO which will be published

by the CAISO on the CAISO Website or available on request.

Metered Control Area Load

For purposes of calculating and billing the Grid Management Charge, Metered Control Area Load is:

(a) all metered Demand for Energy of Scheduling Coordinators for the supply of Loads in the CAISO's Control Area, plus (b) all Energy for exports by Scheduling Coordinators from the CAISO Control Area; less (c) Energy associated with the Load of a retail customer of a Scheduling Coordinator, Utility Distribution Company, Small Utility Distribution Company or Metered Subsystem that is served by a Generating Unit that: (i) is located on the same site as the customer's Load or provides service to the customer's Load through arrangements as authorized by Section 218 of the California Public Utilities Code; (ii) is a qualifying small power production facility or qualifying cogeneration facility, as those terms are defined in FERC's regulations implementing Section 201 of the Public Utility Regulatory Policies Act of 1978; and (iii) the customer secures Standby Service from a Participating TO under terms approved by a Local Regulatory Authority or FERC, as applicable, or the customer's Load can be curtailed concurrently with an outage of the Generating Unit.

Metered Quantities

For each Direct Access End-User, the actual metered amount of MWh and MW; for each Participating Generator the actual metered amounts of MWh, MW, MVar and MVarh.

Metered Subsystem (MSS)

A geographically contiguous system located within a single zone which has been operating as an electric utility for a number of years prior to the CAISO Operations Date as a municipal utility, water district, irrigation district, state agency or federal power marketing authority subsumed within the CAISO Balancing Authority Area and encompassed by CAISO certified revenue quality meters at each interface point with the CAISO Controlled Grid and CAISO certified revenue quality meters on all Generating Units or, if aggregated, each individual resource and Participating Load internal to the system, which is operated in accordance with a MSS Agreement described in Section 4.9.1.

Metered Subsystem Agreement (MSS Agreement)

A negotiated agreement between the CAISO and an MSS Operator regarding the operation of an MSS in relation to the CAISO entered into pursuant to Section 4.9, which MSS Agreement will incorporate the provision of Section 4.9, unless otherwise agreed.

Metering Facilities

Revenue quality meters, instrument transformers, secondary circuitry, secondary devices, meter data servers, related communication facilities and other related local equipment.

Meter Points

Locations on the CAISO Controlled Grid at which the CAISO requires the collection of Meter Data by a metering device.

Meter Service Agreement for CAISO Metered **Entities (MSA CAISOME)**

An agreement entered into between the CAISO and a CAISO Metered Entity consistent with the provisions of Section 10, a pro forma version of which is set forth in Appendix B.6.

Meter Service Agreement for Schedulina Coordinators (MSA SC)

An agreement entered into between the CAISO and a Scheduling Coordinator consistent with the provisions of Section 10, a pro forma version of which is set forth in Appendix B.7.

Minimum Down Time (MDT)

The minimum amount of time that a Generating Unit must stay off-line after being Shut-Down, due to physical operating constraints.

Minimum Load

For a Generating Unit, the minimum sustained operating level at which it can operate at a continuous sustained level. For a Participating Load, the Operating Level at reduced consumption pursuant to a Dispatch Instruction.

Minimum Load Bid

The Bid component that indicates the Minimum Load Cost for the Generating Unit or Participating Load, specified by a non-negative number in dollars per hour, which applies for the entire Trading Day for which it is submitted.

Minimum Load Costs

The costs a Generating Unit or a Participating Load incurs operating at Minimum Load, which in the case of Participating Load may not be negative.

Minimum Load Energy

The product of the relevant Minimum Load and the duration of the Settlement Interval.

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Minimum Operating Limit

(MOL_{min})

The greater of the Minimum Load or the lower bound of the Regulating

Range if the resource offers Regulation service.

Minimum Run Time The minimum amount of time that a Generating Unit must stay on-line

after being started-up prior to being Shut-Down, due to physical

operating constraints.

Mitigation Frequency The percent of the Generating Unit's run hours where the unit had one

or more Bid segments mitigated under the CAISO Local Market Power

Mitigation.

Mitigation Measures The CAISO market power mitigation measures under the CAISO Tariff.

MKMV Default Probability A calculated result of Moody's KMV CreditEdge or RiskCalc software

products.

MNDC Maximum Net Dependable Capacity

Modified Reserve Sharing

LSE

A Load Serving Entity whose Scheduling Coordinator has informed the

CAISO in accordance with Section 40.1 of its election to be a Modified

Reserve Sharing LSE.

MOL_{max} Maximum Operating Limit
MOL_{min} Minimum Operating Limit

Monthly Available CRR

Capacity

The upper limit of network capacity that will be used in the monthly CRR

Allocation and monthly CRR Auctions calculated by using OTC adjusted

for Outages, derates, and Transmission Ownership Rights for the

relevant month in accordance with Section 36.4.

Monthly CRR A Congestion Revenue Right whose term is one calendar month in

length and distributed in the monthly CRR Allocation and monthly CRR

Auction.

Monthly CRR Eligible

Quantity

The MW quantity of CRRs a CRR Holder or Candidate CRR Holder is

eligible to nominate for the relevant month in a monthly CRR Allocation.

Monthly CRR Load Metric The MW level of Load on a Load Serving Entity's load duration curve

that is exceeded only 0.5% of the time in the relevant month based on

Demand Forecast data.

MORC Minimum Operating Reliability Criteria

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MPM-RRD Market Power Mitigation-Reliability Requirement Determination

MSA CAISOME Metered Service Agreement for CAISO Metered Entities

MSA SC Metered Service Agreement for Scheduling Coordinators

MSC Market Surveillance Committee

MSS Metered Subsystem

MSS Aggregation Either (1) a Metered Subsystem or (2) a collection of Metered

Subsystems represented by a single MSS Aggregator.

MSS Aggregation Net Measured Demand The sum of the net metered CAISO Demand from all the Net-Load MSSs in the MSS Aggregation plus any exports out of the CAISO Balancing Authority Area from the MSS Aggregation. Net metered CAISO Demand of a MSS is defined as the algebraic difference between the CAISO Demand and Generation internal to the MSS.

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MSS Aggregation Net Non-ETC/TOR Measured Demand The sum of the net metered non-ETC/TOR CAISO Demand from all of the non-ETC/TOR Net-Load MSSs in the MSS Aggregation plus any non-ETC/TOR exports out of the CAISO Balancing Authority Area from the MSS Aggregation. Net metered non-ETC/TOR CAISO Demand of an MSS is defined as the algebraic difference between the non-ETC/TOR CAISO Demand and the non-ETC/TOR Generation within the

MSS.

MSS Aggregator An entity that has executed an agreement with the CAISO that enables it

to represent individual MSS Operators in the CAISO Markets on an aggregated basis, which agreement has been accepted by FERC.

MSS Aggregator CRR Entity Agent Agreement

An agreement between the CAISO and an MSS Aggregator by which the MSS Aggregator commits to act as agent for aggregation of MSS

Operators in the CRR Allocation, CRR Auction, and Secondary

Registration System process, a pro forma version of which is set forth in

Appendix B.12.

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MSS Demand

CAISO Demand specified in an MSS Agreement as being within the

MSS.

MSS Deviation Band

The amount by which a Load following MSS Operator can deviate from Expected Energy without incurring a Load Following Deviation Penalty. equal to three percent (3%) of an MSS Operator's metered Demand in the MSS and exports from the MSS, adjusted for Forced Outages and any CAISO directed firm Load Shedding for the MSS's portfolio as a whole.

MSS Load Following Energy

IIE, exclusive of Standard Ramping Energy, Ramping Energy Deviation, and Residual Imbalance Energy, produced or consumed due to Load following by an MSS. MSS Load Following Energy is the IIE that corresponds to the algebraic Qualified Load Following Instruction, relative to the Day-Ahead Schedule. MSS Load Following Energy does not coexist with HASP Scheduled Energy, and it does not overlap with Standard Ramping Energy, Ramping Energy Deviation, or Residual Imbalance Energy, but it may overlap with Day-Ahead Scheduled Energy, Derate Energy, Exceptional Dispatch Energy, Real-Time Self-Scheduled Energy, and Optimal Energy. MSS Load Following Energy is settled as provided in Section 11.5.1, and it is not included in BCR as described in Section 11.8.4.

MSS Operator MSS Supply Multi-Point CRR An entity that owns an MSS and has executed a MSS Agreement. Supply specified in an MSS Agreement as supplying an MSS.

A CRR Obligation specified according to one or more CRR Sources and one or more CRR Sinks and a flow from the CRR Source(s) to the CRR Sink(s), provided that at least the CRR Sink or the CRR Source identifies more than one point.

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Municipal Tax Exempt Debt

An obligation the interest on which is excluded from gross income for federal tax purposes pursuant to Section 103(a) of the Internal Revenue Code of 1986 or the corresponding provisions of prior law without regard to the identity of the holder thereof. Municipal Tax Exempt Debt does not include Local Furnishing Bonds.

Must-Take/Must-Run Generation

The Bid component that identifies Generating Units that are Regulatory Must-Take Generation or Regulatory Must-Run Generation.

Nationally Recognized Statistical Rating Organizations (NRSRO) National credit rating agencies as designated by the U.S. Securities & Exchange Commission.

Load required to be served by a utility within its Service Area pursuant to

Negative Operating
Reserve Obligation Credit

applicable law, franchise, or statute.

Reserve Obligation Credit
Adjustment Factor
(NOROCAF)

The adjustment factor specified in Section 11.10.5.

Negotiated Rate Option

A method of calculating Default Energy Bids based on a negotiation with the CAISO or the Independent Entity.

NERC

NERC Generating

Native Load

The North American Electric Reliability Corporation or its successor. The NERC standard for determination of generation resource net dependable capacity.

Availability Data System (GADS)

NERC Reliability

NERC Reliability Standards for Modeling, Data and Analysis (NERC MOD Standards)

A set of NERC Reliability Standards applicable to the transmission planning process.

NERC/WECC Charge Assessment Year

A given year for which NERC/WECC Charges will be assessed by the WECC based on data from the calendar year two years prior to the year of the NERC/WECC Charge assessment.

NERC/WECC Charges

The charges approved by FERC, pursuant to Section 215 of the FPA and FERC issuances related thereto, that provide funding for the statutory-related functions performed by NERC, the WECC, and regional advisory bodies that serve the WECC, or their successors or assignees.

NERC/WECC Charge Trust Account

An account to be established by the CAISO for the purpose of maintaining funds collected from Scheduling Coordinators and disbursing such funds to the WECC.

NERC/WECC Metered Demand

For purposes of calculating NERC/WECC Charges, a Scheduling Coordinator's net metered CAISO Demand plus Unaccounted for Energy for net metered CAISO Demand and Transmission Losses for metered CAISO Demand. A Scheduling Coordinator's net metered CAISO Demand equals the Scheduling Coordinator's metered CAISO Demand (which adds Energy associated with imports from and subtracts Energy associated with exports to other Balancing Authority Areas), less metered CAISO Demand for Station Power and for Energy required for storage at electric energy storage facilities, such as pumped storage. For purposes of calculating NERC/WECC Metered Demand, Unaccounted for Energy and Transmission Losses allocable to net metered CAISO Demand will be allocated pro rata to each Scheduling Coordinator based on the Scheduling Coordinator's net metered CAISO Demand.

Net Assets (NA)

For governmental and not-for-profit entities, defined as total assets minus total liabilities.

Net Hourly Energy Charge

Total Charges to all Demand minus total Payments to all Supply both based on the product of MWh amounts specified in all Day-Ahead Schedules and the relevant LMPs at the applicable PNodes or Aggregated Pricing Node.

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Net IFM Bid Cost Uplift The amount of IFM-related Bid Costs resulting from the sequential

netting in Section 11.8.6.2 and allocated to Scheduling Coordinators in

accordance with Section 11.8.6.4.

Net-Load MSS An MSS with positive net metered CAISO Demand of the MSS within

the MSS Aggregation.

Net Negative CAISO Demand Deviation

The difference between metered CAISO Demand and the total CAISO

Demand scheduled in the Day-Ahead Schedule, if positive.

Net Negative Uninstructed Deviation

The real-time change in Generation or Demand associated with underscheduled Demand (i.e., Demand that appears unscheduled in

Real-Time) and overscheduled Generation (i.e., Generation that is scheduled in the DAM and does not appear in Real-Time), which are netted for each Settlement Interval, apply to a Scheduling Coordinator's entire portfolio, and include Demand, Generation, imports and exports.

Net Output The gross Energy output from a Generating Unit less the Station Power

requirements for such Generating Unit during the Netting Period, or the

Energy available to provide Remote Self-Supply from a generating facility in another Balancing Authority Area during the Netting Period.

Net Procurement The awarded amount (MWs) of a given Ancillary Service in the Day-

> Ahead, HASP, and Real-Time Markets, minus, (ii) the amount of that Ancillary Service associated with payments rescinded pursuant to any of

the provisions of Section 8.10.2.

Net Qualifying Capacity Qualifying Capacity reduced, as applicable, based on: (1) testing and

> verification; (2) application of performance criteria; and (3) deliverability restrictions. The Net Qualifying Capacity determination shall be made by the CAISO pursuant to the provisions of this CAISO Tariff and the

applicable Business Practice Manual.

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netting in Section 11.8.6.2 and allocated to Scheduling Coordinators in

accordance with Section 11.8.6.6.

Net RUC Bid Cost Uplift

The amount of RUC-related Bid Costs resulting from the sequential

netting in Section 11.8.6.2 and allocated to Scheduling Coordinators in

accordance with Section 11.8.6.5.

Net Scheduled QFA Qualifying Facility identified in a QF PGA operated as a single unit

such that the Energy bid or self-scheduled with the CAISO is the net value of the aggregate electrical net output of the Qualifying Facility and

the Self-provided Load.

Netting Period A calendar month, representing the interval over which the Net Output of

one or more generating resources in a Station Power Portfolio is available to be attributed to the self-supply of Station Power in that

Station Power Portfolio.

Network UpgradesThe additions, modifications, and upgrades to the CAISO Controlled

Grid required at or beyond the Point of Interconnection to accommodate the interconnection of the Generating Facility to the CAISO Controlled Grid. Network Upgrades shall consist of Delivery Network Upgrades and Reliability Network Upgrades. Network Upgrades do not include

Distribution Upgrades.

New High Voltage Facility A High Voltage Transmission Facility of a Participating TO that is placed

in service after the beginning of the TAC Transition Period described in Section 4 of Schedule 3 of Appendix F, or a capital addition made and placed in service after the beginning of the TAC Transition Period

described in Section 4.2 of Schedule 3 of Appendix F to an Existing High

Voltage Facility.

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New Participating TO A Participating TO that is not an Original Participating TO. **New Responsible Utility** A Responsible Utility that executes a TCA after April 1, 1998. Node

A point in the Full Network Model representing a physical location within the CAISO Balancing Authority Area or the CAISO Controlled Grid. which includes the Load and Generating Unit busses in the CAISO Balancing Authority Area and at the Intertie busses between the CAISO Balancing Authority Area and interconnected Balancing Authority Areas.

A set of operating or scheduling rules which are used to ensure that Nomogram simultaneous operating limits are respected, in order to meet NERC and WECC Reliability Standards and operating criteria.

Non-CPUC Load Serving Any entity serving retail Demand in the CAISO Balancing Authority Area not within the jurisdiction of the CPUC, including (i) a local publicly owned electric utility under section 9604 of the California Public Utilities Code and (ii) any federal entities, including but not limited to federal

power marketing authorities, that serve retail Load.

A Use-Limited Resource that cannot be increased or curtailed at the direction of the CAISO in the Real-Time Dispatch of the CAISO

Balancing Authority Area to Supply or consume Energy, such as certain Qualifying Facilities.

A Non-Dynamic System Resource that is a specific generation resource outside the CAISO Balancing Authority Area.

A System Resource that is not capable of submitting a Dynamic Schedule, or for which a Dynamic Schedule has not be submitted, which

may be a Non-Dynamic Resource-Specific System Resource. A Participating TO that (1) is not a UDC, MSS Operator or Scheduling

Coordinator serving End-Use Customers and (2) does not have Gross Load in accordance with Section 9 of Schedule 3 of Appendix F.

Entity

Non-Dispatchable Use-Limited Resource

Non-Dynamic Resource-**Specific System Resource**

Non-Dynamic System Resource

Non-Load-Serving **Participating TO**

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Non-Overlapping Optimal

Energy

The portions of Optimal Energy that are not Overlapping Optimal

Energy, which are indexed against the relevant Energy Bid and sliced by

Energy Bid price.

Non-Participating TO A TO that is not a party to the Transmission Control Agreement or, for

the purposes of Section 16.1, the holder of transmission service rights

under an Existing Contract that is not a Participating TO.

Non-Spinning Reserve The portion of generating capacity that is capable of being synchronized

> and Ramping to a specified load in ten minutes (or Load that is capable of being interrupted in ten minutes) and that is capable of running (or

being interrupted).

Non-Spinning Reserve

Cost

The revenues paid to the suppliers of the total awarded Non-Spinning

Reserve capacity in the Day-Ahead Market, HASP, and Real-Time Market, minus, (ii) the payments rescinded due to either the failure to conform to CAISO Dispatch Instructions or the unavailability of the Non-

Spinning Reserves under Section 8.10.8.

Non-Spinning Reserve

Obligation

The obligation of a Scheduling Coordinator to pay its share of costs

incurred by the CAISO in procuring Non-Spinning Reserve.

No Pay The rescission of a payment made for provision of Spinning Reserve

> and/or Non-Spinning Reserve when, subsequent to the AS Award for such Ancillary Service and payment, the Ancillary Service becomes Undispatchable Capacity, Unavailable Capacity, Undelivered Capacity,

or, in certain circumstances, unsynchronized capacity.

NOROCAF Negative Operating Reserve Obligation Credit Adjustment Factor

NRC The Nuclear Regulatory Commission or its successor.

NRC Standards The reliability standards published by the NRC from time to time.

OASIS Open Access Same-Time Information System

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Out-of-Balancing Authority Area Load Serving Entity **OBAALSE**

Off A unit is Off when it is offline or in the process of starting up or shutting

down.

Offsetting CRR One of the pair of new equal and opposite CRRs created and allocated

> by the CAISO to reflect Load Migration between two LSEs pursuant to the provisions in Section 36.8.5, which is allocated to the Load losing LSE and is opposite in direction to the corresponding CRR previously allocated to that LSE and is denominated in a MW quantity that reflects

the net amount of Load Migration between the two LSEs.

On A unit is On when it is online, synchronized with the grid, and available

for Dispatch.

Energy from a Generating Unit that is deemed to have self-supplied all **On-Site Self-Supply**

or a portion of its associated Station Power Load without use of the

CAISO Controlled Grid during the Netting Period.

Open Access Same-Time Information System

(OASIS)

The electronic posting system for transmission access data that the

CAISO maintains on the CAISO Website that allows all Market

Participants to view the data simultaneously.

Operating Day The day when the Real-Time Market runs and Energy is supplied to

Load.

Operating Hour The hour during the day when the Real-Time Market runs and Energy is

supplied to Load.

Operating Procedures Procedures governing the operation of the CAISO Controlled Grid as the

CAISO may from time to time develop, and/or procedures that

Participating TOs currently employ which the CAISO adopts for use.

Operating Reserve The combination of Spinning and Non-Spinning Reserve required to

meet WECC and NERC Reliability Standards and requirements for

reliable operation of the CAISO Balancing Authority Area.

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Operating Reserve Obligation

The obligation of a Scheduling Coordinator to pay its share of costs

incurred by the CAISO in procuring Operating Reserves.

Operating Reserve Ramp Rate

A single number included in Ancillary Service Bids and Submissions to Self-Provide Ancillary Services for Spinning Reserve and Non-Spinning

Reserve that represent the Ramp Rate of a resource used in the

procurement of Operating Reserve capacity.

Operating Transfer Capability (OTC)

The maximum capability of a transmission path to transmit real power, expressed in MW, at a given point in time, as further defined in Appendix

L.

Operational Adjustment The difference between the Energy scheduled in the Balancing Authority

Area check-out process for Non-Dynamic System Resources and the

sum of Dispatch Interval IIE.

Operational Control

The rights of the CAISO under the Transmission Control Agreement and

the CAISO Tariff to direct Participating TOs how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting

Applicable Reliability Criteria.

Operational Ramp Rates A staircase function of up to 4 segments (in addition to Ramp Rate

segments needed for modeling Forbidden Operating Regions).

Operational Ramp Rates are submitted with Energy Bid data.

Operator The operator of facilities that comprise the CAISO Controlled Grid or a

Participating Generator.

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Optimal Energy

Any remaining IIE after accounting for all other IIE subtypes. Optimal Energy does not overlap with Standard Ramping Energy, Ramping Energy Deviation, Residual Imbalance Energy, Real-Time Minimum Load Energy, Derate Energy, and Exceptional Dispatch Energy, but it may overlap with Day-Ahead Scheduled Energy, HASP Scheduled Energy, and MSS Load Following Energy. Optimal Energy is indexed against the relevant Energy Bid and sliced by service type, depending on the AS capacity allocation on the Energy Bid. Optimal Energy is also divided into Overlapping Optimal Energy and Non-Overlapping Optimal Energy. Any Optimal Energy slice below or above the Energy Bid has no associated Energy Bid price, and it is not included in BCR as described in Section 11.5.1.1.

Optional Interconnection Study

A sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

The final rule issued by FERC entitled "Promoting Wholesale

Optional Interconnection Study Agreement

The form of agreement accepted by FERC and posted on the CAISO Website for conducting the Optional Interconnection Study.

Order No. 888

Competition through Open Access Non- discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public

Utilities and Transmitting Utilities," 61 Fed. Reg. 21,540 (May 10, 1996), FERC Stats. & Regs., Regulations Preambles [1991-1996] \P 31,036 (1996), Order on Rehearing, Order No. 888-A, 78 FERC \P 61,220

(1997), as it may be amended from time to time

Order No. 889

The final rule issued by FERC entitled "Open Access Same-Time Information System (formerly Real Time Information Networks) and Standards of Conduct," 61 Fed. Reg. 21,737 (May 10, 1996), FERC Stats. & Regs., Regulations Preambles [1991-1996] ¶ 31,035 (1996), Order on Rehearing, Order No. 889-A, 78 FERC ¶ 61,221 (1997), as it

may be amended from time to time.

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Original Participating TO

A Participating TO that was a Participating TO as of January 1, 2000.

OTC

Operating Transfer Capability

Outage

Disconnection, separation or reduction in capacity, planned or forced, of

one or more elements of an electric system.

Out-of-Balancing Authority Area Load Serving Entity (OBAALSE) An entity serving end-users located outside the CAISO Balancing

Authority Area and that has been granted authority or has an obligation pursuant to federal, state or local law, or under contracts to provide electric service to such end-users located outside the CAISO Balancing

Authority Area.

Overgeneration

A condition that occurs when total Supply exceeds total Demand in the

CAISO Balancing Authority Area.

Overlapping Optimal Energy

The portion of Optimal Energy that overlaps with MSS Load Following

Energy.

Partial Resource Adequacy Resource A Resource Adequacy Resource that has capacity that is designated by its Scheduling Coordinator as Resource Adequacy Capacity in its monthly or annual Resource Adequacy Plan and has a related availability obligation to the CAISO, but also has capacity that is not committed to meet a resource adequacy obligation in the CAISO

Balancing Authority Area.

Participating Generator

A Generator or other seller of Energy or Ancillary Services through a Scheduling Coordinator over the CAISO Controlled Grid from a Generating Unit with a rated capacity of 1 MW or greater, or from a Generating Unit providing Ancillary Services and/or submitting Energy Bids through an aggregation arrangement approved by the CAISO, which has undertaken to be bound by the terms of the CAISO Tariff, in the case of a Generator through a Participating Generator Agreement.

Participating Generator Agreement (PGA)

An agreement between the CAISO and a Participating Generator, a pro

forma version of which is set forth in Appendix B.2.

Participating Intermittent Resource

One or more Eligible Intermittent Resources that meets the

requirements of the technical standards for Participating Intermittent Resources adopted by the CAISO and published on the CAISO

Website.

Participating Intermittent **Resource Export Fee**

Fee based on Schedule 4 of Appendix F and Section 5.3 of Appendix Q.

Participating Intermittent **Resource Fees**

Fees set forth in Section 11.2.4.5.4.

Participating Load

An entity, including an entity with Pumping Load or Aggregated Participating Load, providing Curtailable Demand, which has undertaken in writing by execution of a Participating Load Agreement to comply with all applicable provisions of the CAISO Tariff.

Participating Load Agreement (PLA)

An agreement between the CAISO and a Participating Load, a pro forma version of which is set forth in Appendix B.4.

Participating TO or **Participating Transmission Owner** (PTO)

A party to the Transmission Control Agreement whose application under Section 2.2 of the Transmission Control Agreement has been accepted and who has placed its transmission assets and Entitlements under the CAISO's Operational Control in accordance with the Transmission Control Agreement. A Participating TO may be an Original Participating TO or a New Participating TO.

Participating TO Service Territory

The area in which an IOU, a Local Public Owned Electric Utility, or federal power marketing authority that has turned over its transmission facilities and/or Entitlements to CAISO Operational Control is obligated to provide electric service to Load. A PTO Service Territory may be comprised of the Service Areas of more than one Local Publicly Owned Electric Utility, if they are operating under an agreement with the CAISO for aggregation of their MSS and their MSS Operator is designated as the Participating TO.

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Participating TO's Interconnection Facilities

All facilities and equipment owned, controlled, or operated by the Participating TO from the Point of Change of Ownership to the Point of Interconnection as identified in Part A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Participating TO's

Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network

Upgrades.

Path 15 Upgrade The upgraded transmission facilities on Path 15 that have been turned

over to CAISO Operational Control.

Payment AdviceA document published as a result of an invoicing run pursuant to the

CAISO Payments Calendar in which a Business Associate's current net

financial obligation is a negative Settlement Amount.

Payment Date The date by which invoiced amounts are to be paid under the terms of

the CAISO Tariff.

PGA Participating Generator Agreement

Original Sheet No. 913

Physical Scheduling Plant

A group of two or more related Generating Units, each of which is individually capable of producing Energy, but which either by physical necessity or operational design must be operated as if they were a single Generating Unit and any Generating Unit or Units containing related multiple generating components which meet one or more of the following criteria: i) multiple generating components are related by a common flow of fuel which cannot be interrupted without a substantial loss of efficiency of the combined output of all components; ii) the Energy production from one component necessarily causes Energy production from other components; iii) the operational arrangement of related multiple generating components determines the overall physical efficiency of the combined output of all components; iv) the level of coordination required to schedule individual generating components would cause the CAISO to incur scheduling costs far in excess of the benefits of having scheduled such individual components separately; or v) metered output is available only for the combined output of related multiple generating components and separate generating component metering is either impractical or economically inefficient.

Physical Trade

An Inter-SC Trade of Energy at an individual PNode of Generating Units that is submitted to the CAISO for Settlement through the CAISO Market and is subject to physical validation.

PIR Export Percentage

The PIR Export Percentage will be calculated for each Participating Intermittent Resource as the ratio of the Participating Intermittent Resource's PMax in the CAISO Master File minus the MW subject to an exemption under Section 5.3.2 of the EIRP in Appendix Q on a MW basis to the Participating Intermittent Resource's PMax in the CAISO Master File.

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PLA Participating Load Agreement

Planning Standards

The committee appointed under Section 24.2.1. Committee

PMax The maximum normal capability of the Generating Unit. PMax should

not be confused as an emergency rating of the Generating Unit.

PMin The minimum normal capability of the Generating Unit.

PMS Power Management System

PNode Pricing Node

PNP Priority Nomination Process

PNP Eligible Quantity The maximum MW quantity of CRRs an LSE is eligible to nominate in

the Priority Nomination Process of the CRR Allocation.

POD Point(s) of Delivery

Point of Change of Ownership

The point, as set forth in Part A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's

Interconnection Facilities connect to the Participating TO's

Interconnection Facilities.

Point of Demarcation For a Net Scheduled QF, the point (1) where the electrical conductors

> from the Net Scheduled QF contact an electric utility system or the CAISO Controlled Grid; or (2) if dedicated utility distribution facilities are employed, where the dedicated facilities contact the electric utility

system or the CAISO Controlled Grid.

Point of Interconnection The point, as set forth in Part A to the Standard Large Generator

Interconnection Agreement or Attachment 3 to the Small Generator

Interconnection Agreement, where the Interconnection Facilities connect

to the CAISO Controlled Grid.

Point(s) of Delivery or Withdrawal (POD or Point(s) of Withdrawal)

Point(s) within the CAISO Balancing Authority Area where Energy and Ancillary Services are made available to a receiving party under this

CAISO Tariff.

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Point(s) of Receipt or Injection (POR or Point(s) or Injection)

Point(s) within the CAISO Balancing Authority Area where Energy and Ancillary Services are made available by a delivering party under this

CAISO Tariff.

Point-to-Point CRR A CRR Option or CRR Obligation with a single CRR Source to a single

CRR Sink.

POR Point(s) of Receipt

Power The electrical work produced by a Generating Unit that is absorbed by

> the resistive components of Load or other network components, measured in units of watts or standard multiples thereof, e.g., 1,000

Watt = 1 kW; 1,000 kW = 1 MW, etc.

Power Flow Model A network model used by the CAISO to model the voltages, power

injections and power flows on the CAISO Controlled Grid and adjacent

Balancing Authority Areas.

Power Management System (PMS)

The CAISO computer control system used to monitor the real-time performance of the various elements of the CAISO Controlled Grid, control Generation, and perform operational power flow studies.

Power System Stabilizers (PSS)

An electronic control system applied on a Generating Unit that helps to damp out dynamic oscillations on a power system. The Power System Stabilizers senses Generator variables, such as voltage, current and shaft speed, processes this information and sends control signals to the Generator voltage regulator.

Power Transfer Distribution Factor (PTDF)

The percentage of a power transfer that flows on a transmission facility as a result of the injection of power at a specific bus and the withdrawal of power at another bus or a Reference Bus.

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Preliminary NERC/WECC Charge Invoice

An initial invoice issued by the CAISO that reflects an allocation of NERC/WECC Charges to a Scheduling Coordinator for a NERC/WECC Charge Assessment Year based on (i) the Scheduling Coordinator's NERC/WECC Metered Demand for the NERC/WECC Charge Assessment Year as described in Section 11.20.4, multiplied by (ii) the Preliminary NERC/WECC Charge Rate for the NERC/WECC Charge Assessment Year.

Preliminary NERC/WECC Charge Rate

The preliminary rate to be paid by Scheduling Coordinators for NERC/WECC Charges for a NERC/WECC Charge Assessment Year based on (i) the portions of the proposed budgets of NERC, WECC, and regional advisory bodies that serve the WECC that the WECC notifies the CAISO in writing are allocable to the CAISO for the NERC/WECC Charge Assessment Year or, alternatively, if the WECC does not provide such written notification to the CAISO in accordance with the CAISO-WECC Billing Services Agreement, the portions of the budgets of NERC, WECC, and regional advisory bodies that serve that WECC that the WECC informed the CAISO were allocable to the CAISO for the immediately preceding NERC/WECC Charge Assessment Year divided by (ii) the total of all Scheduling Coordinators' NERC/WECC Metered Demand for the NERC/WECC Charge Assessment Year as described in Section 11.20.4, including any adjustments to the calculation of NERC/WECC Metered Demand, as reported to the WECC pursuant to Section 11.20.4(b), and including any additional adjustments to the calculation of NERC/WECC Metered Demand, based on decisions by the WECC to permit such adjustments, that the WECC provides to the CAISO in a written statement in accordance with the CAISO-WECC Billing Services Agreement.

Pre-RA Import Commitment

Any power purchase agreement, ownership interest, or other commercial arrangement entered into on or before March 10, 2006, by a Load Serving Entity serving Load in the CAISO Balancing Authority Area for the procurement of Energy or capacity from a resource or resources located outside the CAISO Balancing Authority Area. The Pre-RA Import Commitment shall be deemed to terminate upon the expiration of the initial term of the Pre-RA Import Commitment, notwithstanding any "evergreen" or other renewal provision exercisable at the option of the Load Serving Entity.

Pre-RA Import Commitment Capability

The quantity in MW assigned to a particular Intertie into the CAISO Balancing Authority Area based on a Pre-RA Import Commitment.

Price Taker

A quantity only Energy Bid with no associated price.

Pricing Node (PNode)

A single network Node or subset of network Nodes where a physical injection or withdrawal is modeled and for which a Locational Marginal Price is calculated and used for financial settlements.

Primary CAISO Control Center

The CAISO Control Center located in Folsom, California.

Priority Nomination Process (PNP)

The step in an annual CRR Allocation in years beyond CRR Year One through which CRR Holders re-nominate (1) Seasonal CRRs they were allocated in the prior year, (2) Long Term CRRs that are expiring, and (3) Existing Transmission Contracts and Converted Rights that are expiring.

Priority Type

The Bid component that indicates if applicable the scheduling priority for

Prior Period Change

the Settlement Period for Reliability Must-Run Generation, if applicable. Any correction, surcharge, credit, refund or other adjustment pertaining to a billing month pursuant to an RMR Contract which is discovered after the Revised Adjusted RMR Invoice for such billing month has been issued.

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Prior Period Change Worksheet

A worksheet prepared by the RMR Owner and submitted to the CAISO following discovery of a necessary change to an RMR Invoice after the Revised Adjusted RMR Invoice for the billing month has been issued. A calculation of a resource's Start-Up Costs and Minimum Load Costs

Projected Proxy Cost

A calculation of a resource's Start-Up Costs and Minimum Load Costs for a prospective six-month period used to determine the maximum Registered Cost for the resource. Projected Proxy Costs will be calculated whenever a Scheduling Coordinator elects the Registered Cost option. For natural gas fired resources, the Projected Proxy Cost will be based on applying the highest average price for monthly forward gas contracts at Henry Hub for the six-month period during which the Registered Cost option is in effect to the fuel consumption parameters used for calculating the Proxy Cost, as set forth in a Business Practice Manual. For non-gas fired resources, the Projected Proxy Costs for Start-Up Costs and Minimum Load Costs will be calculated using the information contained in the Master File used for calculating the Proxy Cost, as set forth in the Business Practice Manual.

Project Sponsor

Proxy Cost

A Market Participant or group of Market Participants or a Participating TO that proposes the construction of a transmission addition or upgrade in accordance with Section 24.

A written proposal submitted by a CAISO Metered Entity to the CAISO

Proposal for Installation

describing a proposal for the installation of additional Metering Facilities. The cost basis of a generating resource for which the operating cost is calculated as an approximation of the actual operating cost pursuant to Section 30.4(1).

PSS Power System Stabilizers

PTDF Power Transfer Distribution Factor

PTO Participating TO or Participating Transmission Owner

PTO Service Territory

The area in which an IOU, a Local Public Owned Electric Utility, or federal power marketing authority that has turned over its transmission facilities and/or Entitlements to CAISO Operational Control is obligated to provide electric service to Load. A PTO Service Territory may be comprised of the Service Areas of more than one Local Publicly Owned Electric Utility, if they are operating under an agreement with the CAISO for aggregation of their MSS and their MSS Operator is designated as the Participating TO.

Public Utility Regulatory Policies Act (PURPA)

The Public Utility Regulatory Policies Act of 1978, incorporated in relevant part into the Federal Power Act.

Pumped-Storage Hydro Unit

A hydroelectric dam with the capability to produce electricity and the ability to pump water between reservoirs at different elevations to store such water for the production of electricity.

Pumping Cost

The hourly cost of pumping, expressed in \$/hour, submitted by a Participating Load.

Pumping Load

A hydro pumping resource that is capable of responding to Dispatch Instructions by ceasing to pump.

Pump Ramping Conversion Factor

A Master File entry submitted by Scheduling Coordinators that allows the Scheduling Coordinator to indicate the ratio of Energy expended to pump water into storage that can be used to produce Energy. A zero percent Pump Ramping Conversion Factor implies that no amount of Energy production capability is produced as a result of pumping water and the CAISO shall not use such unavailable Energy in its CAISO Markets optimization. A hundred percent Pump Ramping Conversion Factor indicates all the Energy expended to pump water is available for Generation and the CAISO shall use only the available portions in its CAISO Markets optimization. The Pump Ramping Conversion Factor submitted in the Master File need not be based on physical characteristics of the resource and is adjustable by the Scheduling Coordinator.

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Pump Shut-Down Costs A Bid Component submitted by Scheduling Coordinators for resources

that are registered as a Participating Load that indicates the \$/MWh that

the Scheduling Coordinator is willing to be paid to not pump.

PURPA Public Utility Regulatory Policies Act

QF Qualifying Facility

QF PGA Qualifying Facility Participating Generator Agreement

Qualified Load Following

Instruction

The MSS Load following instruction that is limited by the qualified Load following up or down capacity. The qualified Load following up and down capacity is the Load following capacity that is qualified and limited

by whether the resource is derated or is limited by the Regulation Limits

if the resource is providing Regulation.

Qualified OBAALSE An OBAALSE which the CAISO has certified has met all the

requirements for eligibility for CRR Allocation in accordance with Section

39.

Qualifying Capacity The maximum capacity of a Resource Adequacy Resource. The criteria

for calculating Qualifying Capacity from Resource Adequacy Resources may be established by the CPUC or other applicable Local Regulatory

Authority and provided to the CAISO.

Qualifying Facility (QF)A qualifying cogeneration facility or small qualifying power production

facility, as defined in the Code of Federal Regulations, Title 18, Part 292

(18 C.F.R § 292).

Qualifying Facility Participating Generator Agreement (QF PGA) An agreement between the CAISO and a Generator with a QF

Generating Unit, a pro forma version of which is set forth in Appendix

B.3.

Queue Position

The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the CAISO.

Ramping

Changing the loading level of a Generating Unit in a constant manner over a fixed time (e.g., Ramping up or Ramping down). Such changes may be directed by a computer or manual control.

Ramping Energy Deviation

The portion of Imbalance Energy produced or consumed due to deviation from the Standard Ramp because of ramp constraints, Start-Up, or Shut-Down. Ramping Energy Deviation may overlap with Standard Ramping Energy, and both Standard Ramping Energy and Ramping Energy Deviation may overlap with Day-Ahead Scheduled Energy, but with no other IIE subtype. Ramping Energy Deviation may be composed of two parts: a) the part that overlaps with Standard Ramping Energy whenever the DOP crosses the Standard Ramping Energy region; and b) the part that does not overlap with Standard Ramping Energy. The latter part of Ramping Energy Deviation consists only of extra-marginal IIE contained within the hourly schedule change band and not attributed to Exceptional Dispatch or derates. Ramping Energy Deviation does not apply to Non-Dynamic System Resources (including Resource-Specific System Resources). Ramping Energy Deviation is settled as described in Section 11.5.1, and it is included in BCR only for market revenue calculations as provided in Section 11.8.1.4.5.

Ramp Rate

The Bid component that indicates the operational Ramp Rate,
Regulation Ramp Rate, and Operating Reserve Ramp Rate for a
Generating Unit, and the Load drop rate and Load pick-up rate for
Participating Loads, for which the Scheduling Coordinator is submitting
Energy Bids or Ancillary Services Bids.

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Original Sheet No. 922

RAS Remedial Action Schemes

Rated Governmental

Entity

A municipal utility or state or federal agency that holds an issuer,

counterparty, or underlying credit rating by a Nationally Recognized

Statistical Rating Organization.

Rated Public/Private

Corporation

An investor-owned or privately held entity that holds an issuer,

counterparty, or underlying credit rating by a Nationally Recognized

Statistical Rating Organization.

Real-Time The period of time during the Operating Hour. Any time period during the

twenty-four Operating Hours of any given day.

Real-Time Congestion Fund

For each Settlement Period of the HASP and RTM, the CAISO shall calculate the Real-Time Congestion Fund as the difference of 1) the sum of the products of the RTM or HASP MCC for Demand and the Demand Imbalance Energy at the relevant Location; and 2) the sum of

the products of RTM or HASP MCC for Supply and the Supply

Imbalance Energy at the relevant Location; including also the sum of RTM and HASP Congestion Charges for Intertie Ancillary Services

Awards.

Real-Time Congestion

Offset

A component of the neutrality adjustments as provided in Section

11.5.4.2 to account for the non-assessment Marginal Cost of Congestion

to Measured Demand for ETCs and TOR Self-Schedules in the Real-

Time as provided in Section 11.5.7.

Real-Time Contingency Dispatch (RTCD)

The mode of the Real-Time Dispatch that will be invoked when a transmission or generation Contingency occurs and will include all

Contingency Only Operating Reserves in the optimization.

Real-Time Dispatch (RTD)

The SCED and SCUC software used by the CAISO to determine which

Ancillary Service and Imbalance Energy resources to Dispatch and to

calculate LMPs.

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Real-Time Economic Dispatch (RTED)

The mode of the Real-Time Dispatch that will optimally dispatch resources based on their Energy Bids, excluding Contingency Only Operating Reserves except when needed to avoid an imminent System Emergency.

Real-Time Interchange Export Schedule

A final agreed-upon schedule of Energy to be transferred from the CAISO Balancing Authority Area to another Balancing Authority Area based on agreed-upon size (megawatts), start and end time, beginning and ending ramp times and rate, and type required for delivery and receipt of power and Energy between the source and sink Balancing Authority Areas involved in the transaction.

Real-Time Manual Dispatch (RTMD)

The mode of the Real-Time Dispatch that will be invoked as a fall-back mechanism only when the RTED or RTCD fails to provide a feasible Dispatch.

Real-Time Marginal Cost of Losses Offset

A component of the neutrality adjustments as provided in Section 11.5.4.2 to account for the non-assessment of Marginal Cost of Losses Charges to Measured Demand for TOR Self-Schedules eligible for the Real-Time Marginal Cost of Losses Credit as provided in Section 11.5.7.2.

Real-Time Market (RTM)

The spot market conducted by the CAISO using SCUC and SCED in the Real-Time, after the HASP is completed, which includes the RTUC, STUC and the RTD for the purpose of Unit Commitment, Ancillary Service procurement, Congestion Management and Energy procurement based on Supply Bids and CAISO Forecast of CAISO Demand.

Real-Time Market Pumping Bid Cost

For the applicable Settlement Interval, the Pumping Cost submitted to the CAISO in the HASP or RTM divided by the number of Settlement Intervals in a Trading Hour, as further provided in Section 11.8.4.1.4.

Real-Time Minimum Load Energy

IIE, exclusive of Standard Ramping Energy, Ramping Energy Deviation, and Residual Imbalance Energy, produced due to the Minimum Load of a Generating Unit that is committed in the RUC or the RTM and does not have a Day-Ahead Schedule or of a Constrained Output Generator (COG) that is committed in the IFM with a Day-Ahead Schedule below the registered Minimum Load. If the resource is committed in RTM for Load following by an MSS Operator, the Real-Time Minimum Load Energy is accounted as MSS Load Following Energy instead. Real-Time Minimum Load Energy is IIE above the Day-Ahead Schedule (or zero if there is no Day-Ahead Schedule of Energy) and below the registered Minimum Load. Real-Time Minimum Load Energy does not overlap with any other Expected Energy type. Real-Time Minimum Load Energy is settled as described in Section 11.5.1, and it is included in BCR as described in Section 11.8.4.1.2. IIE that is consumed when a resource that is scheduled in the DAM is shut down in the RTM is accounted as HASP Scheduled Energy or Optimal Energy and not as Real-Time Minimum Load Energy.

Real-Time Pumping Energy

IIE from a Participating Load Pumped-Storage Hydro Unit or Pumping Load, exclusive of Standard Ramping Energy and Ramping Energy Deviation, consumed below the Day-Ahead Schedule when dispatched in pumping mode, or produced from pumping operation due to pumping level reduction in Real-Time, including pump shut-down. Real-Time Pumping Energy does not overlap with any other Expected Energy type. Real-Time Pumping Energy is settled as described in Section 11.5.1, and it is included in BCR as described in Section 11.8.4.1.2.

Real-Time Self-Scheduled Energy

The slice of Non-Overlapping Optimal Energy that corresponds to the Real-Time total Self-Schedule.

Real-Time Settlement Interval MSS Price

1) The Real-Time LAP price for the MSS when the MSS internal metered Demand exceeds the MSS internal measured Generation; or 2) the weighted average of the Real-Time LMPs for all applicable PNodes within the relevant MSS when MSS internal measured Generation exceeds MSS internal Measured Demand where weighting factors for computing the weighted average are based on the measured Energy of all Generation at the corresponding PNodes.

Real-Time Unit Commitment (RTUC)

An application of the RTM that runs every 15 minutes and commits Fast Start Units and Medium Start Units using the SCUC to adjust from Day-Ahead Schedules and HASP Intertie Schedules.

Recalculation Settlement Statement

The reissue of an Initial Settlement Statement T+38BD by the CAISO on the fifty-first (51st) Business Day from the relevant Trading Day (T+51BD) if T+51BD falls on a calendar day that is after the day the Invoice or Payment Advice for the bill period containing the relevant Trading Day is scheduled to publish.

Recalculation Settlement Statement T+76BD

The reissue of an Initial Settlement Statement Reissue or the

Recalculation Settlement Statement by the CAISO on the seventy-sixth (76th) Business Day from the relevant Trading Day (T+76BD).

Redispatch The readjustment of scheduled Generation or Demand side

management measures, to relieve Congestion or manage Energy

imbalances.

Reference Bus The Location(s) on the CAISO Controlled Grid relative to which

mathematical quantities relating to powerflow solution will be calculated.

Registered CostThe cost basis of a generating resource for which the operating cost is

determined from registered values pursuant to Section 30.4(2).

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CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

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Registered Data

Those items of technical data and operating characteristics relating to Generation, transmission or distribution facilities which are identified to the owners of such facilities as being information, supplied in accordance with the CAISO Tariff, to assist the CAISO to maintain reliability of the CAISO Controlled Grid and to carry out its functions. The operating level range within which a generating resource may provide Regulation.

Regulating Range

Regulation

The service provided either by Generating Units certified by the CAISO as equipped and capable of responding to the CAISO's direct digital control (AGC) signals, or by System Resources that have been certified by the CAISO as capable of delivering such service to the CAISO Balancing Authority Area, in an upward and downward direction to match, on a Real-Time basis, Demand and resources, consistent with established NERC and WECC Reliability Standards and operating criteria. Regulation is used to control the Power output of electric generators within a prescribed area in response to a change in system frequency, tie line loading, or the relation of these to each other so as to maintain the target system frequency and/or the established Interchange with other Balancing Authority Areas within the predetermined Regulation Limits. Regulation includes both the increase of output by a Generating Unit or System Resource (Regulation Up) and the decrease in output by a Generating Unit or System Resource (Regulation Down). Regulation Up and Regulation Down are distinct capacity products, with separately stated requirements and ASMPs in each Settlement Period.

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Regulation Down or Regulation Down Reserve

Regulation reserve provided by a resource that can decrease its actual operating level in response to a direct electronic (AGC) signal from the CAISO to maintain standard frequency in accordance with established Reliability Criteria.

Regulation Down Reserve Cost

The revenues paid to the suppliers of the total awarded Regulation Down Reserve capacity in the Day-Ahead, HASP, and Real-Time Markets for the Settlement Period, minus the payments rescinded in the Settlement Period due to the unavailability of the Regulation Down under any of the provisions of Section 8.10.8.

Regulation Limits

The MW limits, up and down, set by a Generator for a Generating Unit's operation on Automatic Generation Control.

Regulation Up or **Regulation Up Reserve**

Regulation provided by a resource that can increase its actual operating level in response to a direct electronic (AGC) signal from the CAISO to maintain standard frequency in accordance with established Reliability Criteria.

Regulation Up Reserve Obligation

The obligation of a Scheduling Coordinator to pay its share of costs incurred by the CAISO in procuring Regulation Up Reserves.

Regulatory Must-Run Generation

Hydro Spill Generation and Generation which is required to run by applicable federal or California laws, regulations, or other governing jurisdictional authority. Such requirements include but are not limited to hydrological flow requirements, environmental requirements, such as minimum fish releases, fish pulse releases and water quality requirements, irrigation and water supply requirements of solid waste Generation, or other Generation contracts specified or designated by the

jurisdictional regulatory authority as it existed on December 20, 1995, or as revised by federal or California law or Local Regulatory Authority.

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Regulatory Must-Take Generation

Those Generation resources identified by CPUC, or a Local Regulatory Authority, the operation of which is not subject to competition. These resources will be scheduled by the relevant Scheduling Coordinator directly with the CAISO on a must-take basis. Regulatory Must-Take Generation includes Generation from Qualifying Facility Generating Units subject to a mandatory purchase obligation as defined by federal law, nuclear units and pre-existing power purchase contracts with minimum Energy take requirements.

Reliability Coordinator

The entity designated by WECC as responsible for reliability coordination in Real-Time for the area defined by WECC.

Reliability Criteria

Pre-established criteria that are to be followed in order to maintain desired performance of the CAISO Controlled Grid under Contingency or steady state conditions.

Reliability Must-Run Charge (RMR Charge)

The sum payable by a Responsible Utility to the CAISO pursuant to Section 41 for the costs, net of all applicable credits, incurred under the Reliability Must-Run Contract.

Reliability Must-Run Contract (RMR Contract)

A Must-Run Service Agreement between the owner of a Reliability Must-Run Unit and the CAISO.

Reliability Must-Run Generation (RMR Generation)

Generation that the CAISO determines is required to be on line to meet Applicable Reliability Criteria requirements. This includes i) Generation constrained on line to meet NERC and WECC reliability criteria for interconnected systems operation; ii) Generation needed to meet Load demand in constrained areas; and iii) Generation needed to be operated to provide voltage or security support of the CAISO or a local area.

Reliability Must-Run Unit (RMR Unit)

A Participating Generator which is the subject of a Reliability Must-Run Contract.

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Reliability Network Upgrades

The transmission facilities at or beyond the Point of Interconnection necessary to interconnect a Large Generating Facility safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of the Large Generating Facility, including Network Upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of the Large Generating Facility to the CAISO Controlled Grid. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a path's WECC rating.

Reliability Requirement Determination (RRD)

The reliability process conducted by the CAISO during the DAM, prior to the IFM, and in the HASP, prior to the RTUC, to determine whether unit(s) subject to a contract with the CAISO to provide local reliability services, which includes Reliability Must-Run and any successor instrument determined are necessary to meet local reliability needs for the CAISO Balancing Authority Area.

Reliability Services Costs

The costs associated with services provided by the CAISO: 1) that are deemed by the CAISO as necessary to maintain reliable electric service in the CAISO Balancing Authority Area; and 2) whose costs are billed by the CAISO to the Participating TO pursuant to the CAISO Tariff. Reliability Services Costs include costs charged by the CAISO to a Participating TO associated with service provided under an Reliability Must-Run Contract, Exceptional Dispatches and Minimum Load Costs associated with units committed for local reliability requirements.

Reliability Standard

A requirement approved by FERC under Section 215 of the Federal Power Act to provide for reliable operation of the bulk power system. The term includes requirements for the operation of existing bulk power system facilities, including cyber security protection, and the design of planned additions or modifications to such facilities to the extent necessary for reliable operation of the bulk power system; but the term does not include any requirement to enlarge such facilities or to construct new transmission capacity or generation capacity.

Remaining Import Capability

The quantity in MW of Total Import Capability assigned to a Load Serving Entity up to its Load Share Quantity after the assignment of Existing Contract Import Capability and Pre-RA Import Commitment. Capability.

Remedial Action Schemes (RAS)

Protective systems that typically utilize a combination of conventional protective relays, computer-based processors, and telecommunications to accomplish rapid, automated response to unplanned power system events. Also, details of RAS logic and any special requirements for arming of RAS schemes, or changes in RAS programming, that may be required. Remedial Action Schemes are also referred to as Special Protection Systems.

Remote Self-Supply

Positive Net Output from generating resources in the Station Power Portfolio that is deemed to have self-supplied Station Power Load of other Generating Units in the Station Power Portfolio during the Netting Period, where such self-supply requires use of the CAISO Controlled Grid.

Request Window

The period of time as set forth in the Business Practice Manual during which transmission additions or upgrades, requests for Economic Planning Studies, and other transmission related information is submitted to the CAISO in accordance with Section 24.2.2.

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Reserve Margin The amount of Resource Adequacy Capacity that a Scheduling

Coordinator is required to maintain in accordance with Section 40.

Reserve Sharing LSE A Load Serving Entity whose Scheduling Coordinator has informed

the CAISO in accordance with Section 40.1 of its election to be a

Reserve Sharing LSE.

Residual Imbalance Energy

Extra-marginal IIE produced or consumed at the start or end of a Trading Hour outside the hourly schedule-change band and not attributed to Exceptional Dispatch. Residual Imbalance Energy is due to a Dispatch Instruction in the previous Trading Hour or a Dispatch Instruction in the next Trading Hour. Residual Imbalance Energy may overlap only with Day-Ahead Scheduled Energy. Residual Imbalance Energy does not apply to Non-Dynamic System Resources (including Resource-Specific System Resources). Residual Imbalance Energy is settled as bid, based on the Real-Time Energy Bid of the reference hour, as described in Section 11.5.1 and it is not included in BCR as described in Section 11.8.4. The reference hour is the previous Trading Hour, if Residual Imbalance Energy occurs at the start of a Trading Hour, or the next Trading Hour, if Residual Imbalance Energy

occurs at the end of a Trading Hour.

Residual Unit Commitment (RUC) The process conducted by the CAISO in the Day-Ahead Market after the IFM has been executed to ensure sufficient Generating Units, System Units, System Resources and Participating Loads are committed to meet the CAISO Forecast of CAISO Demand.

Resource Adequacy
Capacity or RA Capacity

The generation capacity of a Resource Adequacy Resource listed on

a Resource Adequacy Plan and a Supply Plan.

Resource Adequacy Compliance Year

A calendar year from January 1 through December 31.

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Resource Adequacy Plan A submission by a Scheduling Coordinator for a Load Serving Entity

in the form required by the Business Practice Manual to satisfy the

requirements of Section 40.

Resource Adequacy

Resource

A resource that is required to offer Resource Adequacy Capacity. The

criteria for determining the types of resources that are eligible to

provide Qualifying Capacity may be established by the CPUC or other

applicable Local Regulatory Authority and provided to the CAISO.

Resource ID A resource that is required to offer Resource Adequacy Capacity. The

criteria for determining the types of resources that are eligible to

provide Qualifying Capacity may be established by the CPUC or other

applicable Local Regulatory Authority and provided to the CAISO.

Resource Location The Resource ID for a Generating Unit, Participating Load or System

Resource.

Resource-Specific ASMP The Ancillary Services Marginal Price as determined pursuant to

Section 11.10.

Resource-Specific Settlement Interval LMP The LMP at a PNode used for settlement of IIE, calculated as the IIEweighted average, excluding the IIE weight for Residual Imbalance Energy, Energy from HASP Intertie Schedules, and Energy from Black Start and Voltage Support, of the individual LMPs for Dispatch Intervals within the given Settlement Interval for a resource, and if there is no Instructed Imbalance Energy, then it is calculated as the

simple average of the individual LMPs for the Dispatch Intervals within

the given Settlement Interval for a resource.

Resource-Specific System Resource

A Dynamic or Non-Dynamic Resource-Specific System Resource.

Resource-Specific Tier 1 UIE Settlement Interval Price

The price used to settle Tier 1 UIE as calculated pursuant to Section

11.5.2.1.

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Responsible Participating Transmission Owner (or Responsible Participating TO or Responsible PTO)

The party providing transmission service under an Existing Contract listed in Appendix A of a Responsible Participating Transmission Owner Agreement and that is the Scheduling Coordinator for each Existing Right holder listed in Appendix A of that RPTOA, unless that Scheduling Coordinator responsibility is transferred pursuant to the provisions of the RPTOA.

Responsible Participating Transmission Owner Agreement (RPTOA)

An agreement between the CAISO and a Responsible Participating Transmission Owner, a pro forma version of which has been accepted by FERC as a CAISO rate schedule in 88 FERC ¶ 61,077.

Responsible Utility

The utility which is a party to the Transmission Control Agreement in whose PTO Service Territory the Reliability Must-Run Unit is located or whose PTO Service Territory is contiguous to the PTO Service Territory in which a Reliability Must-Run Unit owned by an entity outside of the CAISO Controlled Grid is located.

Responsible Utility Facility Trust Account

A segregated commercial bank account under the Facility Trust Account containing funds held in trust for the Responsible Utility under an RMR Contract.

Revenue Meter Data Acquisition and **Processing System** (RMDAPS)

A collective name for the set of CAISO systems used to collect, validate, edit and report on Revenue Quality Meter Data.

Revenue Quality Meter Data

Meter data meeting the standards and requirements established and maintained by the CAISO.

Revenue Requirement

The revenue level required by a utility to cover expenses made on an investment, while earning a specified rate of return on the investment. The monthly invoice issued by the Reliability Must-Run Owner to the CAISO pursuant to the Reliability Must-Run Contract reflecting any appropriate revisions to the Adjusted Reliability Must-Run Invoice based

on the CAISO's validation and actual data for the billing month.

Revised Adjusted RMR Invoice

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Revised Estimated RMR

Invoice

The monthly invoice issued by the Reliability Must-Run Owner to the

CAISO pursuant to the Reliability Must-Run Contract reflecting

appropriate revisions to the Estimated Reliability Must-Run Invoice based on the CAISO's validation of the Estimated Reliability Must-Run

Invoice.

RMDAPS Revenue Meter Data Acquisition and Processing System

RMR Reliability Must-Run

RMR Charge Reliability Must-Run Charge **RMR Contract** Reliability Must-Run Contract

RMR Default Amount Any amount due to be remitted to the relevant Facility Trust Account by

the RMR Owner or the Responsible Utility in accordance with an RMR

Contract.

RMR Dispatch The quantity of Energy or Ancillary Services that is mandated by the

CAISO to be delivered in a given market for a resource by an RMR Unit

under an RMR Contract.

RMR Dispatch Notice Notice received by an RMR Unit from the CAISO containing an RMR

Dispatch.

RMR Energy Total Expected Energy under RMR Dispatch. RMR Energy is calculated

independent of other Expected Energy types and it may overlap with any

other Expected Energy type. It is used for RMR Contract based

settlement as provided in Section 11.13.

RMR Generation Reliability Must-Run Generation

RMR Invoice Any Estimated RMR Invoice, Revised Estimated RMR Invoice, Adjusted

RMR Invoice, or Revised Adjusted RMR Invoice under an RMR

Contract.

RMR Owner The provider of services under a Reliability Must-Run Contract.

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RMR Owner Facility Trust

Account

The commercial bank account held in trust by the CAISO for the benefit

of the owner of an RMR Unit subject to an RMR Contract as required

and specified in Section 9.2 of the pro forma RMR Contract.

RMR Payment Any amounts which the CAISO is obligated to pay to RMR Owners

under the RMR Contracts, net of any applicable credits under the RMR

Contracts.

RMR Payments Calendar

RMR Proxy Bid

The payment calendar issued by the CAISO pursuant to Section 11.13.

For Condition 1 RMR Units, an amount calculated based on the hourly variable costs as defined in Schedule C of the applicable RMR Contract

in the form of a monotonically increasing function consistent

with the bidding rules in Section 30, which is used in the MPM-RRD process described in Section 31.2. For Condition RMR 2 Units, the Energy Bid defined in Schedule M of the RMR Contract, which is used in

the MPM-RRD process described in Section 31.2.

RMR Refund Any amounts which RMR Owners are obligated to pay to the CAISO and

the CAISO is obligated to pay to the Responsible Utilities under the RMR Contracts, or resulting from any order by the FERC, for deposit

into the Responsible Utility Facility Trust Account.

RMR Security The form of security provided by a Responsible Utility to cover its liability

under Section 11.13.

RMR Unit Reliability Must-Run Unit

RPTOA Responsible Participating Transmission Owner Agreement

RRD Reliability Requirement Determination

RTCD Real-Time Contingency Dispatch

RTD Real-Time Dispatch

RTED Real-Time Economic Dispatch

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RTM Real-Time Market

RTM AS Bid Cost The Bid Cost of a BCR Eligible Resource for Ancillary Service capacity

in the RTM.

RTM Bid Cost The total of a resource's RTM Start–Up Cost, RTM Minimum Load Cost,

RTM Pump Shut-Down Cost, RTM Pumping Cost, RTM Energy Bid

Cost, and RTM AS Bid Cost.

RTM Bid Cost Shortfall For each Settlement Interval, for any BCR Eligible Resource, the

negative amount resulting from the difference between its RTM Bid Cost

and its RTM Market Revenue.

RTM Bid Cost Surplus For each Settlement Interval, for any BCR Eligible Resource, the

positive amount, if any, resulting from the difference between its RTM

Bid Cost and its RTM Market Revenue.

RTM Bid Cost Uplift The system-wide net of the RTM Bid Cost Shortfalls and RTM Bid Cost

Surpluses for a Settlement Interval of all BCR Eligible Resources with Unrecovered Bid Cost Uplift Payments. This amount will be netted according to Section 11.8.6.2 to calculate the Net RTM Bid Cost Uplift

before allocation to Scheduling Coordinators.

RTM Commitment Period A Commitment Period determined by the RTM; provided that if the RTM

changes the Commitment Status of units scheduled in the IFM or committed in the RUC, an RTM Commitment Period may or may not partially overlap with IFM Commitment Period and RUC Commitment

Period.

RTMD Real-Time Manual Dispatch

RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules A credit provided to Scheduling Coordinators pursuant to Section 17.3.3

to offset any HASP and RTM Marginal Cost of Losses that would

otherwise be applied to the valid and balanced portions of any TOR Self-

Schedule in the IFM as provided in Section 11.5.7.2.

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RTM Market Revenue The amount received by BCR Eligible Resource from Energy scheduled

and Ancillary Services awarded in the RTM for the

purposes of Bid Cost Recovery.

RTM Self-Commitment

Period

A time period determined by the CAISO for the purposes of deriving any

Bid Cost Recovery amounts, related to the RTM.

RTUC Real-Time Unit Commitment
RUC Residual Unit Commitment

RUC Availability BidThe quantity (MW) and price (\$/MW per hour) at or above which a

Generating Unit, System Resource, System Unit or Participating Load has agreed to sell capacity for a specified interval of time to the CAISO

to meet the Residual Unit Commitment requirement.

RUC Availability Bid Cost As provided in Section 11.8.3.1.3, the product of the RUC Award and

the relevant RUC Availability Bid price, divided by the number of

Settlement Intervals in a Trading Hour.

RUC Availability Payment The payment made for the RUC Availability Quantity as specified in

Section 11.2.2.1.

RUC Availability Quantity A RUC Award (MW) excluding any RUC Capacity that is actually

unavailable due to a unit derate or Outage.

RUC AwardThe portion of the RUC Capacity from resources eligible to receive RUC

Availability Payments, exclusive of Minimum Load, capacity designated

as RMR, and capacity under resource adequacy requirements as

specified in Section 40.

RUC Bid CostThe total Bid Costs associated with commitment by the CAISO through

the RUC process used for determination of Unrecovered Bid Cost Uplift

Payments and RUC Bid Cost Uplift allocation.

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RUC Bid Cost Shortfall For each Settlement Interval, for any BCR Eligible Resource, the

negative amount, if any, resulting from the difference between its RUC

Bid Cost and its RUC Market Revenue.

RUC Bid Cost Surplus For each Settlement Interval, for any BCR Eligible Resource, the

positive amount, if any, resulting from the difference between its RUC

Bid Cost and its RUC Market Revenue.

RUC Bid Cost Uplift The system-wide net of the RUC Bid Cost Shortfalls and RUC Bid Cost

> Surpluses for a Settlement Interval for all BCR Eligible Resources with Unrecovered Bid Cost Uplift Payments. This amount will be netted according to Section 11.8.6.2 to calculate the Net RUC Bid Cost Uplift

before allocation to Scheduling Coordinators.

RUC Capacity The positive difference between the RUC Schedule and the greater of

the Day-Ahead Schedule and the Minimum Load level of a resource.

RUC Commitment Period A Commitment Period determined by the RUC; provided that because

> the RUC may not decommit units scheduled in the IFM, if the unit is scheduled by the IFM within that Time Period an IFM Commitment Period is always within a RUC Commitment Period; and a RUC

Commitment Period may start earlier and/or may end later than an IFM Commitment Period if RUC issues an earlier Start-Up Instruction and/or

later Shut-Down Instruction than the IFM, respectively.

RUC Compensation The payment to Scheduling Coordinators with RUC Awards, calculated

as the sum of RUC Availability Payment and RUC Unrecovered Bid

Costs.

RUC Compensation Cost As provided in Section 11.8.6.5, for each Trading Hour of the RUC, the

sum of the RUC Availability Payment and the hourly Net RUC Bid Cost

Uplift, which is allocated as provided in Section 11.8.6.5.3.

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RUC Market Revenues The sum of a resource's RUC Availability Payment for a Trading Hour

divided by the number of Settlement Intervals in a Trading Hour or the

purposes of calculating Bid Cost Recovery for RUC.

RUC Price The price calculated by the RUC optimization for each Trading Hour of

the next Trading Day which reflects the price (\$/MW per hour) for the next increment of RUC Capacity at a specified PNode for each Trading

Hour.

RUC Schedule The total MW per hour amount of capacity committed by RUC including

the MW per hour amounts committed in the Day-Ahead Schedule.

RUC Zone A forecast region representing a UDC or MSS Service Area, Local

Capacity Area, or other collection of Nodes for which the CAISO has developed sufficient historical CASIO Demand and relevant weather data to perform a Demand Forecast for such area, for which as further provided in Section 31.5.3.7 the CAISO may adjust the CAISO Forecast of CAISO Demand to ensure that the RUC process produces adequate

local capacity procurement.

Rules of Conduct The rules set forth in Sections 37.2 through 37.7.

Sanction A consequence specified in Section 37 for the violation of a Rule of

Conduct, which may include a) a warning letter notifying the Market Participant of the violation and future consequences specified under Section 37 if the behavior is not corrected, or b) financial penalties. Neither referral to FERC nor rescission of payment for service not

provided shall constitute a Sanction.

SC Scheduling Coordinator

SCA Scheduling Coordinator Agreement

SCADA Supervisory Control and Data Acquisition
SCED Security Constrained Economic Dispatch

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

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Schedule A Day-Ahead Schedule, a HASP Advisory Schedule, or a HASP Intertie

Schedule.

Scheduled Demand The MW of Energy of Demand cleared through the IFM and set in the

Day-Ahead Schedule for the next Trading Day.

Scheduled Generation The MW of Energy of Generation cleared through the IFM and set in the

Day-Ahead Schedule for the next Trading Day.

Scheduling and Logging system for the CAISO (SLIC)

A logging application that allows Market Participants to notify the CAISO when a Generating Unit's properties change due to physical problems.

Users can modify the maximum and minimum output of a unit, as well as

the Ramping capability of the unit.

Scheduling Coordinator (SC)

An entity certified by the CAISO for the purposes of undertaking the

functions specified in Section 4.5.3.

which is set forth in Appendix B.1.

Scheduling Coordinator Agreement (SCA)

An agreement between a Scheduling Coordinator and the CAISO whereby the Scheduling Coordinator agrees to comply with all CAISO rules, protocols and instructions, as those rules, protocols and

instructions may be amended from time to time, a pro forma version of

Scheduling Coordinator Applicant An applicant for certification by the CAISO as a Scheduling Coordinator.

Scheduling Coordinator Application Form

The form specified by the CAISO from time to time in which a Scheduling Coordinator Applicant must apply to the CAISO for certification as a Scheduling Coordinator.

Scheduling Coordinator Customer

A customer of the Scheduling Coordinator Applicant or a Scheduling Coordinator for whom the Scheduling Coordinator provides services relevant to the CAISO Controlled Grid.

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Scheduling Coordinator ID Code (SCID)

The Bid component that indicates the individual identification Code

provided by the CAISO to the Scheduling Coordinator.

Scheduling Coordinator Metered Entity

A Generator, Eligible Customer or End-User that is not a CAISO

Metered Entity.

Scheduling Point A location at which the CAISO Controlled Grid is connected, by a group

> of transmission paths for which a physical, non-simultaneous transmission capacity rating has been established for Congestion Management, to transmission facilities that are outside the CAISO's

Operational Control.

SCID Scheduling Coordinator ID Code

Scoping Meeting The meeting among representatives of the Interconnection Customer,

> the applicable Participating TO, and the CAISO conducted for the purpose of discussing alternative interconnection options, to exchange

information including any transmission data and earlier study evaluations that would be reasonably expected to impact such

interconnection options, to analyze such information, and to determine

the potential feasible Points of Interconnection.

SCUC Security Constrained Unit Commitment

Seasonal Available CRR

Capacity

The upper limit of network capacity that will be used in the annual CRR Allocation and annual CRR Auction calculated by effectively reducing OTC for Transmission Ownership Rights as if all lines will be in service

for the relevant year in accordance with Section 36.4.

Seasonal CRR A Congestion Revenue Right that is valid for one season and one time-

of-use period in a given year.

Seasonal CRR Eligible

Quantity

The MW quantity of CRRs a CRR Holder or Candidate CRR Holder is

eligible to nominate for a specific season and time of use period in the

annual CRR Allocation.

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Seasonal CRR Load **Metric**

The MW level of Load that is exceeded only in .05 percent of the hours for each season and time of use period based on the LSE's historical Load.

Secondary Registration System

The computer interface through which CRR Holders and Candidate CRR Holders register any bilateral CRR transactions with the CAISO. An algorithm performed by a computer program that simultaneously clears Energy Supply Bids, including Self-Schedules, against Demand Forecast to determine Dispatch Instructions.

Security Constrained Economic Dispatch (SCED)

Security Constrained Unit Commitment (SCUC)

An algorithm performed by a computer program over a multi-hour Time Horizon that determines the Commitment Status and Day-Ahead Schedules, AS Awards, RUC Awards, HASP Intertie Schedules and Dispatch Instructions for selected resources and minimizes production costs (Start-Up, Minimum Load and Energy Bid Costs in IFM, HASP and RTM; Start-Up, Minimum Load and RUC Availability Bid Costs) while respecting the physical operating characteristics of selected resources and transmission Constraints.

Security Monitoring

The real-time assessment of the CAISO Controlled Grid that is conducted to ensure that the system is operating in a secure state, and in compliance with all Applicable Reliability Criteria.

Self-Commitment Period

The portion of a Commitment Period of a unit with an Energy Self-Schedule or a Submission to Self-Provide an Ancillary Services, except for Non-Spinning Reserve self-provision by a Fast Start Unit. The Self-Commitment Period may include Time Periods without Energy Self-Schedules or AS self-provision if it is determined by inference that the unit must be on due to Minimum Run Time, Minimum Down Time, or Maximum Daily Start-Up constraints.

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Self-Provided Ancillary Services

A Submission to Self-Provide Ancillary Services in the Day-Ahead Market, HASP, or Real-Time Market that has been accepted by the CAISO. Acceptance will occur prior to Ancillary Service Bid evaluation in the relevant market and indicates that the CAISO has determined the submission is feasible with regard to resource operating characteristics and regional constraints and is qualified to provide the Ancillary Service in the market for which it was submitted. Self-Provided Ancillary Services consist of self-provided Regulation Up reserves, self-provided Regulation Down reserves, self provided Spinning Reserves, and selfprovided Non-Spinning Reserves.

Self-provided Load

The portion of Load that is served by a Net Scheduled QF listed in a QF PGA, consistent with Section 218(b) of the California Public Utilities Code.

Self-Schedule

The Bid component that indicates the quantities in MWhs with no specification of a price that the Scheduling Coordinator is submitting to the CAISO, which indicates that the Scheduling Coordinator is a Price Taker, Regulatory Must-Run Generation or Regulatory Must-Take Generation, which includes ETC and TOR Self-Schedules and Self-Schedules for Converted Rights.

Service Area

An area in which an IOU or a Local Publicly Owned Electric Utility is obligated to provide electric service to End-Use Customers.

Set Point

Scheduled operating level for each Generating Unit or other resource scheduled to run in the HASP Schedule and HASP Awards.

Settlement

Process of financial settlement for products and services purchased and sold undertaken by the CAISO under Section 11. Each Settlement will involve a price and a quantity.

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Settlement Account An account held at a bank situated in California, designated by a

Scheduling Coordinator, a CRR Holder or a Participating TO pursuant to the Scheduling Coordinator's Scheduling Coordinator Agreement, the CRR Holder's CRR Entity Agreement or in the case of a Participating TO, Section 2.2.1 of the Transmission Control Agreement, to which the CAISO shall pay amounts owing to the Scheduling Coordinator, the

CRR Holder or the Participating TO under the CAISO Tariff.

Settlement Interval The time period equal to or a multiple of the Dispatch Interval, over

which the CAISO settles cost compensation amounts or deviations in

Generation and Demand in CAISO Markets.

Settlement Interval Penalty Location Real-Time LMP The optimal Instructed Imbalance Energy weighted average of the individual Dispatch Interval Real-Time LMPs for the resources in a UDP

Aggregation established pursuant to Appendix R.

For all CAISO transactions the period beginning at the start of the hour, and ending at the end of the hour. There are twenty-four Settlement Periods in each Trading Day, with the exception of a Trading Day in

which there is a change to or from daylight savings time.

Settlement Quality Meter Data

Meter Data gathered, edited, validated, and stored in a settlement-ready

format, for Settlement and auditing purposes.

Settlement Quality Meter Data Systems

A collective name for the set of CAISO systems used to accept, analyze

and report on Settlement Quality Meter Data.

Settlements, Metering, and Client Relations Charge

The component of the Grid Management Charge that provides for the recovery of the CAISO's costs, including, but not limited to the costs of maintaining customer account data, providing account information to customers, responding to customer inquiries, calculating market charges, resolving customer disputes, and the costs associated with the CAISO's Settlement, billing, and metering activities. Because this is a fixed charge per Scheduling Coordinator ID, costs associated with activities listed above also are allocated to other charges under the Grid Management Charge according to formula set forth in Appendix F, Schedule 1, Part A of this Tariff.

Settlement Statement

Any one of the following: Initial Settlement Statement T+38BD, Initial Settlement Statement Reissue, Recalculation Settlement Statement and Recalculation Settlement Statement T+76BD.

Settlement Statement Rerun

The re-calculation of a Settlement Statement in accordance with the

provisions of the CAISO Tariff. Simultaneous Feasibility Test

Shadow Price

SFT

The marginal value of relieving a particular Constraint.

Short Start Unit

A Generating Unit that has a cycle time less than five hours (Start-Up Time plus Minimum Run Time is less than five hours), has a Start-Up Time less than two hours, and can be fully optimized with respect to this cycle time.

Short-Term Unit Commitment (STUC)

The Unit Commitment procedure run at approximately T-52.5 minutes for a Time Horizon of approximately five (5) hours. The STUC determines whether some Medium Start Units need to be started early enough to meet the Demand within the STUC Time Horizon using the CAISO Forecast of CAISO Demand. The STUC produces a Unit Commitment solution for every 15-minute interval within the STUC Time Horizon and issues binding Start-Up Instructions only as necessary.

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A Commitment Status transition from On to Off. Shut-Down

Shut-Down Cost The Bid Component submitted by the Scheduling Coordinator indicating

a single price at which the resource is willing to Shut-Down.

Shut-Down Instruction An instruction issued by the CAISO to a resource to Shut-Down.

Simultaneous Feasibility Test (SFT)

The process that the CAISO will conduct to ensure that allocated and auction CRRs do not exceed relevant transmission system Constraints as described in Section 36.4.2 and further described in the Business

Practice Manuals.

Site Control Documentation reasonably demonstrating: (1) ownership of, a leasehold

> interest in, or a right to develop a site for the purpose of constructing the Generating Facility: (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell,

lease or grant Interconnection Customer the right to possess or occupy

a site for such purpose.

SLIC Scheduling and Logging system for the CAISO

Small Generating Facility A Generating Facility that has a Generating Facility Capacity of no more

than 20 MW.

Small Utility Distribution Company (SUDC)

An entity that owns a Distribution System that is capable of transmitting or delivery of Energy to and/or from the CAISO Controlled Grid that provides retail electric service to End-Use Customers, and has the following characteristics:

- 1. Annual peak Demand is 25 MW or less;
- 2. The Distribution System is not in a local reliability area defined by the CAISO; and
- 3. Good Utility Practice was used in designing all substation facilities that are owned or operated by the entity and interconnected to the CAISO Controlled Grid, and none of those substations have transmission circuit breakers.

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Issued on: December 21, 2007 Effective: March 31, 2008 Small Utility Distribution Company Operating Agreement (SUDC Operating Agreement) An agreement between the CAISO and an SUDC, a pro forma version of which is set forth in Appendix B.10.

SMEC

System Marginal Energy Cost

Special Protection System (SPS)

An automatic protection system designed to detect abnormal or predetermined system conditions, and take corrective actions other than and/or in addition to the isolation of faulted components to maintain System Reliability. Such action may include changes in Demand, Generation (MW and MVar), or system configuration to maintain system stability, acceptable voltage, or power flows. An SPS does not include (a) Underfrequency Load Shedding or undervoltage Load Shedding or (b) fault conditions that must be isolated or (c) out-of-step relaying (not designed as an integral part of an SPS). An SPS is also sometimes called a Remedial Action Scheme.

Spinning Reserve

The portion of unloaded synchronized generating capacity that is immediately responsive to system frequency and that is capable of being loaded in ten minutes, and that is capable of running for at least two hours.

Spinning Reserve Cost

The revenues paid to the suppliers of the total awarded Spinning Reserve capacity in the Day-Ahead Market, HASP, and Real-Time Market for the Settlement Period, minus the payments rescinded in the Settlement Period due to the unavailability of the Spinning Reserve under any of the provisions of Section 8.10.2.

Spinning Reserve Obligations

The obligation of a Scheduling Coordinator to pay its share of costs

incurred by the CAISO in procuring Spinning Reserve.

SPS Special Protection System

Stand Alone Network Upgrades

Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the CAISO Controlled Grid or Affected Systems during their construction. The Participating TO, the CAISO, and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

Standard Large Generator Interconnection Agreement (LGIA) The form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility, a *pro forma* version of which is set forth in Appendix V.

Standard Large Generator Interconnection Procedures (LGIP)

The interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that is set forth in Appendix U.

Standard Ramp (-ing)

A ramp calculated from two consecutive Day-Ahead Schedules that results in a straight trajectory between 10 minutes before the start of a Trading Hour to 10 minutes after the start of the Trading Hour.

Standard Ramping Energy

Imbalance Energy produced or consumed in the first two and the last two Dispatch Intervals due to hourly schedule changes. Standard Ramping Energy is a schedule deviation along a linear symmetric twenty (20)-minute ramp (Standard Ramp) across hourly boundaries. Standard Ramping Energy is always present when there is an hourly schedule change, including resource Start-Ups and Shut-Downs. Standard Ramping Energy does not apply to Non-Dynamic System Resources (including Resource-Specific System Resources) and is not subject to Settlement as described in Section 11.5.1.

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Standby Rate A rate assessed a Standby Service Customer by the Participating TO

that also provides retail electric service, as approved by the Local

Regulatory Authority, or FERC, as applicable, for Standby Service which compensates the Participating TO, among other things, for costs of High

Voltage Transmission Facilities.

Standby Service Service provided by a Participating TO that also provides retail electric

> service, which allows a Standby Service Customer, among other things, access to High Voltage Transmission Facilities for the delivery of backup power on an instantaneous basis to ensure that Energy may be reliably delivered to the Standby Service Customer in the event of an Outage of

a Generating Unit serving the customer's Load.

Standby Service Customer

A retail End-Use Customer of a Participating TO that also provides retail

electric service that receives Standby Service and pays a Standby Rate.

Standby Transmission

Revenue

The transmission revenues, with respect to cost of both High Voltage Transmission Facilities and Low Voltage Transmission Facilities,

collected directly from Standby Service Customers through charges for

Standby Service.

Start-Up A Commitment Status transition from Off to On.

Start-Up Bid The Bid component that indicates the Start-Up Time and Start-Up Cost

> curves for the Generating Unit, which applies for the entire Trading Day for which it is submitted. Start-Up Cost curves are strictly monotonically increasing non-negative staircase curves, up to three segments, which

represent a function of Start-Up Cost versus down time.

Start-Up Cost The cost incurred by a particular Generating Unit during Start-Up from

> the time of first fire, the time of receipt of a CAISO Dispatch Instruction, or the time the unit was last synchronized to the grid, whichever is later, until the time the Generating Unit reaches its minimum operating level.

Start-Up Instruction An instruction issued by the CAISO to a resource to Start-Up.

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Start-Up Time The time period required for a resource to go from Off to its Minimum

Load.

State Estimator A computer software program that provides the CAISO with a near Real-

Time assessment of system conditions within the CAISO Balancing

Authority Area, including portions of the CAISO Balancing Authority Area

where Real-Time information is unavailable.

Station Power Energy for operating electric equipment, or portions thereof, located on

the Generating Unit site owned by the same entity that owns the

Generating Unit, which electrical equipment is used exclusively for the production of Energy and any useful thermal energy associated with the

production of Energy by the Generating Unit; and for the incidental

heating, lighting, air conditioning and office equipment needs of

buildings, or portions thereof, that are owned by the same entity that

owns the Generating Unit; located on the Generating Unit site; and used exclusively in connection with the production of Energy and any useful

thermal energy associated with the production of Energy by the

Generating Unit. Station Power includes the Energy associated with

motoring a hydroelectric Generating Unit to keep the unit synchronized

at zero real power output to provide Regulation or Spinning Reserve.

Station Power does not include any Energy used to power synchronous condensers; used for pumping at a pumped storage facility; or provided

during a Black Start procedure. Station Power does not include Energy

to serve loads outside the CAISO Balancing Authority Area.

Station Power Portfolio One or more generating resources eligible to self-supply Station Power,

including Generating Units in the CAISO Balancing Authority Area, and

generating facilities outside the CAISO Balancing Authority Area, all of

which are owned by the same entity.

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STUC Short-Term Unit Commitment

Study Plan The plan to be developed pursuant to Section 24.4.3, which sets forth

the technical studies to be performed during the annual Transmission

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Planning Process.

Sub-LAP A CAISO defined subset of PNodes within a Default LAP.

Submission to Self-Provide an Ancillary A submission to the CAISO containing all of the bidding requirements for

Service

an Ancillary Service with the exception of price information.

Sub-Region A region identified by the CAISO for procurement of Ancillary Services

within the System Region.

SUDC Small Utility Distribution Company.

SUDC Operating Agreement Small Utility Distribution Company Operating Agreement

Supervisory Control and Data Acquisition (SCADA)

A computer system that allows an electric system operator to remotely

monitor and control elements of an electric system.

Supply The Energy delivered from a Generating Unit, System Unit, Physical

Scheduling Plant, System Resource or the Curtailable Demand provided

by a Participating Load.

Supply Plan A submission by a Scheduling Coordinator for a Resource Adequacy

Resource in order to satisfy the requirements of Section 40.

System Emergency Conditions beyond the normal control of the CAISO that affect the ability

of the CAISO Balancing Authority Area to function normally including any abnormal system condition which requires immediate manual or automatic action to prevent loss of Load, equipment damage, or tripping

of system elements which might result in cascading Outages or to restore system operation to meet the minimum operating reliability

criteria.

System Marginal Energy Cost (SMEC)

The component of the LMP that reflects the marginal cost of providing

Energy from a designated reference Location.

System Planning Studies

Reports summarizing studies performed to assess the adequacy of the CAISO Controlled Grid as regards conformance to Reliability Criteria.

System Region

The CAISO Balancing Authority Area.

System Reliability

A measure of an electric system's ability to deliver uninterrupted service

at the proper voltage and frequency.

System Resource

A group of resources, single resource, or a portion of a resource located outside of the CAISO Balancing Authority Area, or an allocated portion of a Balancing Authority Area's portfolio of generating resources that are either a static Interchange schedule or directly responsive to that Balancing Authority Area's Automatic Generation Control (AGC) capable of providing Energy and/or Ancillary Services to the CAISO Balancing Authority Area, provided that if the System Resource is providing Regulation to the CAISO it is directly responsive to AGC.

System Unit

One or more individual Generating Units and/or Loads within a Metered Subsystem controlled so as to simulate a single resource with specified performance characteristics, as mutually determined and agreed to by the MSS Operator and the CAISO. The Generating Units and/or Loads making up a System Unit must be in close physical proximity to each other such that the operation of the resources comprising the System Unit does not result in significant differences in flows on the CAISO Controlled Grid.

TAC

Transmission Access Charge

TAC Benefit

The amount, if any, for each year by which the cost of Existing High Voltage Transmission Facilities associated with deliveries of Energy to Gross Loads in the PTO Service Territory is reduced by the implementation of the High Voltage Access Charge described in Schedule 3 to Appendix F. The TAC Benefit of a New Participating TO

shall not be less than zero.

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TAC Transition Date January 1, 2001, the date described in Section 4.2 of Appendix F,

Schedule 3, when the first New Participating TO's execution of the

Transmission Control Agreement took effect, which established the start of the TAC Transition Period for the calculation of the Access Charge.

TAC Transition Period The 10-year transition period for the CAISO's Access Charge

methodology commencing January 1, 2001 through December 31, 2010.

Take-Out Point The metering points at which a Scheduling Coordinator Metered Entity

or CAISO Metered Entity takes delivery of Energy.

Tangible Net Worth (TNW)

Total assets minus intangibles (e.g., good will) minus total liabilities.

Tax Exempt Debt

Municipal Tax Exempt Debt or Local Furnishing Bonds.

Tax Exempt Participating

A Participating TO that is the beneficiary of outstanding Tax Exempt

Debt issued to finance any electric facilities, or rights associated

therewith, which are part of an integrated system including transmission facilities the Operational Control of which is transferred to the CAISO

pursuant to the Transmission Control Agreement.

TCA Transmission Control Agreement
TEA Transmission Exchange Agreement

Third Party Supply Energy that is deemed to have been purchased from third parties to

supply Station Power Load during the Netting Period.

Tie Point Meter A revenue meter, which is capable of providing Settlement Quality Meter

Data, at a Scheduling Point or at a boundary between Utility Distribution

Companies within the CAISO Controlled Grid.

Tier 1 UIE The quantity of Uninstructed Deviation from the resource's Instructed

Imbalance Energy.

Tier 2 UIE The quantity of Uninstructed Deviation from the resource's Day-Ahead

Schedule.

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Original Sheet No. 954

Tier LT The tier of the annual CRR Allocation process through which the CAISO

allocates Long Term CRRs.

Time Horizon The time period to which a given CAISO Market optimization process

applies. For the IFM and RUC the Time Horizon consists of each

Trading Hour of the next Trading Day. For the HASP, the Time Horizon is 1.75 Trading Hours in fifteen-minute increments. For STUC the Time Horizon is 4.25 Trading Hours in fifteen-minute increments. For RTUC the Time Horizon is a variable number of fifteen-minute intervals that runs every fifteen minutes and covers 4 to 7 intervals. For the RTD, the Time Horizon is seven five-minute intervals span over thirty-five minutes.

Time Period The period of time for Scheduling or Dispatch activities, which is a

Trading Hour in the DAM and a Dispatch Interval in the RTM.

TNW Tangible Net Worth TO Transmission Owner

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Tolerance Band

The permitted area of variation for performance requirements of resources used for various purposes as further provided in the CAISO Tariff. The Tolerance Band is expressed in terms of Energy (MWh) for Generating Units, System Units and imports from Dynamic System Resources for each Settlement Interval and equals the greater of the absolute value of: (1) five (5) MW divided by number of Settlement Intervals per Settlement Period or (2) three percent (3%) of the relevant Generating Unit's, Dynamic System Resource's or System Unit's maximum output (PMax), as registered in the Master File, divided by number of Settlement Intervals per Settlement Period. The maximum output (PMax) of a Dynamic System Resource will be established by agreement between the CAISO and the Scheduling Coordinator representing the Dynamic System Resource on an individual case basis, taking into account the number and size of the generating resources, or allocated portions of generating resources, that comprise the Dynamic System Resource.

The Tolerance Band is expressed in terms of Energy (MWh) for Participating Loads for each Settlement Interval and equals the greater of the absolute value of: (1) five (5) MW divided by number of Settlement Intervals per Settlement Period or (2) three percent (3%) of the applicable HASP Intertie Schedule or CAISO Dispatch amount divided by number of Settlement Intervals per Settlement Period. The Tolerance Band shall not be applied to Non-Dynamic System

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Resources.

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TOR Transmission Ownership Right

TOR Self-Schedule A Self-Schedule submitted by a Scheduling Coordinator pursuant to

Transmission Ownership Rights as reflected in the TRTC Instructions.

Total CAISO Markets

Uplift

The sum of the Net IFM Bid Cost Uplift, the Net RUC Bid Cost Uplift, and the Net RTM Bid Cost Uplift, for all Settlement Intervals in the IFM,

RUC and RTM.

Total Import CapabilityThe aggregate Maximum Import Capability of all Interties into the CAISO

Balancing Authority Area in MW deliverable to the CAISO Balancing Authority Area based on CAISO study criteria minus the aggregate sum in MW of all Existing Contracts and Transmission Ownership Rights held

by load serving entities that do not serve Load within the CAISO

Balancing Authority Area.

Total Positive CAISO Markets Uplift

The sum of the positive IFM Bid Cost Uplift, positive RUC Bid Cost Uplift and positive RTM Bid Cost Uplift, for all Settlement Intervals in the IFM,

RUC and RTM.

Total Transfer Capability

(TTC)

The amount of power that can be transferred over an interconnected

transmission network in a reliable manner while meeting all of a specific set of defined pre Contingency and post Contingency system conditions.

Trading DayThe twenty-four hour period for which any given DAM or RTM is

executed and settled, beginning at the start of the hour ending 0100 and ending at the end of the hour ending 2400 daily, except where there is a

change to and from daylight savings time. For any given DAM, the Trading Day will be the next Operating Day following the Operating Day during which that DAM is executed. For any given RTM, the Trading

Day will be the same Operating Day during which that RTM is executed.

Trading Hour Any hour during which trades are conducted in a CAISO Market.

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Trading Hub An aggregation of network Pricing Nodes, such as Existing Zone

Generation Trading Hubs, maintained and calculated by the CAISO for settlement and trading purposes posted by the CAISO on its CAISO

Website.

Trading Interval A Settlement Period.

Trading MonthThe period beginning at the start of the hour ending 0100 and ending at

the end of the hour ending 2400 for each calendar month, except where there is a change to and from daylight savings time on the first or last

day of a month.

Transformer and Line Loss Correction Factor

The transformer and line loss correction factor as set forth in the

applicable Business Practice Manual or Technical Specifications to be applied to revenue quality meters of CAISO Metered Entities which are

installed on the low voltage side of step-up transformers.

Transition Charge The component of the Access Charge collected by the CAISO with the

High Voltage Access Charge in accordance with Section 5.7 of

Appendix F, Schedule 3.

Transmission Access Charge (TAC)

Transmission Assess

Access Charge

Transmission Access
Charge Area (TAC Area)

A portion of the CAISO Controlled Grid with respect to which

Participating TOs' High Voltage Transmission Revenue Requirements are recovered through a High Voltage Access Charge. TAC Areas are

listed in Section 3 of Schedule 3 of Appendix F.3.

Transmission Control Agreement (TCA)

The agreement between the CAISO and Participating TOs establishing the terms and conditions under which TOs will become Participating TOs and how the CAISO and each Participating TO will discharge their respective duties and responsibilities, as may be modified from time to

time.

Transmission Exchange Agreement (TEA)

The agreement among the CAISO, Western Area Power Administration and Pacific Gas and Electric Company establishing the terms and conditions of the treatment of Western Area Power Administration's interests in the Pacific AC Intertie, which agreement was originally accepted by FERC in Docket No. ER04-688.

Transmission Interface

A CAISO-defined set of transmission facilities that comprise an important transmission corridor for Energy or capacity.

Transmission Losses

Energy that is lost as a natural part of the process of transmitting Energy from Generation to Load delivered at the CAISO/Utility Distribution Company boundary or Balancing Authority Area boundary.

Transmission Losses Charge

The charge for Transmission Losses based on the Marginal Cost of

Losses at the Pricing Node.

Transmission Owner (TO)

An entity owning transmission facilities or having firm contractual rights

to use transmission facilities.

Transmission Ownership Right (TOR)

The ownership or joint ownership right to transmission facilities within the CAISO Balancing Authority Area of a Non-Participating TO that has not executed the Transmission Control Agreement, which transmission facilities are not incorporated into the CAISO Controlled Grid.

Transmission Owner Tariff (TO Tariff)

A tariff setting out a Participating TO's rates and charges for

transmission access to the CAISO Controlled Grid and whose other terms and conditions are the same as those contained in the document referred to as the Transmission Owners Tariff approved by FERC as it

may be amended from time to time.

Transmission Plan The report prepared by the CAISO on annual basis pursuant to Section

24, which documents the outcome of the Transmission Planning

Process as defined in the Study Plan.

Transmission Planner A designation by NERC regarding responsibility to perform specified

transmission planning functions in accordance with the NERC Reliability

Standards.

Transmission Planning Process

The process by which the CAISO assesses the CAISO Controlled Grid

as set forth in Section 24.

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A factor described in Appendix L.

Transmission Reliability Margin (TRM)

RM)

Transmission Revenue Balancing Account (TRBA) A mechanism to be established by each Participating TO which will ensure that all Transmission Revenue Credits and other credits specified in Sections 6, 8, and 13 of Appendix F, Schedule 3, flow through to transmission customers.

Transmission Revenue Credit

For an Original Participating TO, the proceeds received from the CAISO for Wheeling service, CRR Auction revenue and Congestion Charges, plus the shortfall or surplus resulting from (a) the proceeds received from any LCRIG with respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such proceeds against the Original Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. For a New Participating TO during the 10-year TAC Transition Period described in Section 4 of Schedule 3 of Appendix F, the proceeds received from the CAISO for Wheeling service and IFM Congestion Credit pursuant to Section 4.3.1.2, plus (a) the proceeds received from any LCRIG with respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such proceeds against the New Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. After the 10-year TAC Transition Period, the New Participating TO Transmission Revenue Credit shall be calculated the same as the Transmission Revenue Credit for the Original Participating TO.

Transmission Revenue Requirement (TRR)

The Transmission Revenue Requirement is the total annual authorized revenue requirements associated with transmission facilities and Entitlements turned over to the Operational Control of the CAISO by a Participating TO. The costs of any transmission facility turned over to the Operational Control of the CAISO shall be fully included in the Participating TO's Transmission Revenue Requirement. The Transmission Revenue Requirement includes the costs of transmission facilities and Entitlements and deducts Transmission Revenue Credits and credits for Standby Transmission Revenue and the transmission revenue expected to be actually received by the Participating TO for Existing Rights and Converted Rights.

Transmission Rights and Transmission Curtailment (TRTC) Instructions

Operational directives developed (i) between Existing Rights holders, and holders of Converted Rights and the Participating TO, submitted to the CAISO by the Participating TO, unless otherwise agreed to by the Participating TO and the Existing Rights holder and (ii) by TOR holders to facilitate the accommodation of Existing Rights and TORs in the CAISO Markets.

TRBA Transmission Revenue Balancing Account

Trial Operation

The period during which Interconnection Customer is engaged in on-site test operations and commissioning of a Generating Unit prior to Commercial Operation.

TRM Transmission Reliability Margin

TRR Transmission Revenue Requirement

Transmission revenue requirement

_ .

TRTC Instructions

Trustee

Transmission Rights and Transmission Curtailment Instructions
The trustee of the California Independent System Operator trust
established by order of the California Public Utilities Commission on
August 2, 1996 Decision No. 96-08-038 relating to the Ex Parte Interim
Approval of a Loan Guarantee and Trust Mechanism to Fund the
Development of an Independent System Operator (ISO) and a Power
Exchange (PX) pursuant to Decision 95-12-063 as modified.

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TTC **Total Transfer Capability UDC Utility Distribution Company**

UDCOA Utility Distribution Company Operating Agreement

UDP Uninstructed Deviation Penalty

UDP Aggregation Two or more units scheduled by the same Scheduling Coordinator with

the same Resource ID that are to be considered interchangeable for

calculating the Uninstructed Deviation Penalty.

UFE Unaccounted for Energy

UIE Uninstructed Imbalance Energy

UIE Settlement Amount The payment due a Scheduling Coordinator for positive Uninstructed

> Imbalance Energy or the charge assessed on a Scheduling Coordinator for negative Uninstructed Imbalance Energy, calculated pursuant to

Section 11.5.2.

Unaccounted for Energy

(UFE)

The difference in Energy, for each utility Service Area and Settlement Period, between the net Energy delivered into the utility Service Area, adjusted for utility Service Area Transmission Losses and the total Metered Demand within the utility Service Area adjusted for distribution losses using Distribution System loss factors approved by the Local

measurement errors, power flow modeling errors, energy theft, statistical

Load profile errors, and distribution loss deviations.

Regulatory Authority. This difference is attributable to meter

Unavailable Capacity Ancillary Services capacity that receives an AS Award and Self-Provided

> Ancillary Services capacity that was not dispatched by the CAISO but where all or a portion of the capacity was not available for Dispatch to

provide in Real-Time.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 21, 2007 Effective: March 31, 2008 **Uncontrollable Force** Any act of God, labor disturbance, act of the public enemy, war,

insurrection, riot, fire, storm, flood, earthquake, explosion, any

curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities or any other cause beyond the reasonable control of the CAISO or Market Participant which

could not be avoided through the exercise of Good Utility Practice.

Undelivered CapacityAncillary Services capacity that receives an AS Award and Self-Provided

Ancillary Services capacity, or capacity committed in RUC, that was dispatched by the CAISO to provide Energy but where a certain

percentage or more of the Expected Energy was not provided in Real-Time, which percentage is determined as specified in the applicable

Business Practice Manual.

Underfrequency Load Shedding (UFLS)

Automatic Load Shedding, accomplished by the use of such devices as underfrequency relays, intended to arrest frequency decline and assure

continued operation within anticipated islands.

Undispatchable Capacity Ancillary Services capacity that receives an AS Award and Self-Provided

Ancillary Services capacity, or capacity committed in RUC, that is not

available for use due to a derate or Outage of the resource.

Undispatchable Capacity includes AS Awards for Spinning Reserve and Non-Spinning Reserve capacity that are not available for use due to Ramp Rate constraints (e.g., operational Ramping ability is lower than

Operating Reserve Ramp Rate).

Unified Planning Assumptions

The assumptions to be developed pursuant to Section 24.4.3 and used,

to the maximum extent possible, in performing technical studies

identified in the Study Plan as part of the annual Transmission Planning

Process.

Uninstructed Deviation

A deviation from the resources' Dispatch Operating Point.

FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 963

Effective: March 31, 2008

Uninstructed Deviation Penalty (UDP)

Uninstructed Imbalance Energy (UIE)

The penalty as set forth in Section 11.23.

The portion of Imbalance Energy that is not Instructed Imbalance

Energy.

Unit Commitment The process of determining which Generating Units will be committed

(started) to meet Demand and provide Ancillary Services in the near

future (e.g., the next Trading Day).

Unrated Governmental

Entity

A municipal utility or state or federal agency that does not hold an

issuer, counterparty, or underlying credit rating by a Nationally

Recognized Statistical Rating Organization.

Unrated Public/Private

Corporation

An investor-owned or privately held entity that does not hold an issuer,

counterparty, or underlying credit rating by a Nationally Recognized

Statistical Rating Organization.

Unrecovered Bid Cost Uplift Payment

A payment made to Scheduling Coordinators for any Bid Costs in the

IFM, RUC, and RTM not recovered by IFM, RUC, or RTM Market

Revenues as provided in Section 11.8.5.

Unsecured Credit Limit The level of credit established for a Market Participant or CRR Holder

that is not secured by any form of Financial Security, as provided for in

Section 12.

Upgrade The required additions and modifications to the CAISO Controlled Grid

and the Distribution System at or beyond the Point of Interconnection.

Upgrades may be Network Upgrades or Distribution Upgrades.

Upgrades do not include Interconnection Facilities.

Use-Limited Resource A resource that, due to design considerations, environmental restrictions

> on operations, cyclical requirements, such as the need to recharge or refill, or other non-economic reasons, is unable to operate continuously on a daily basis, but is able to operate for a minimum set of consecutive

Trading Hours each Trading Day.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 964

Utility Distribution Company (UDC)

An entity that owns a Distribution System for the delivery of Energy to and from the CAISO Controlled Grid, and that provides regulated retail electric service to Eligible Customers, as well as regulated procurement service to those End-Use Customers who are not yet eligible for direct access, or who choose not to arrange services through another retailer. An agreement between the CAISO and a Utility Distribution Company, a

Utility Distribution Company Operating Agreement (UDCOA)

pro forma version of which is set forth in Appendix B.8.

Validation, Estimation and **Editing (VEE)**

The procedures set forth in Section 10 that the CAISO applies to Revenue Quality Meter Data in order to develop Settlement Quality Meter Data.

Variable Cost

The cost associated with fuel cost and variable operations and maintenance costs.

Variable Cost Option

A method of calculation Default Energy Bids based on fuel costs and variable operations and maintenance costs.

VEE

Validation, Estimation and Editing

Verified CRR Source Quantity

The MW amount corresponding to a verified CRR Source and the LSE or OBAALSE that submitted that verified CRR Source to the CAISO, as described in Section 36.8.3.4.

Voltage Limits

For all substation busses, the normal and post Contingency Voltage Limits (kV). The bandwidth for normal Voltage Limits must fall within the bandwidth of the post Contingency Voltage Limits. Special voltage limitations for abnormal operating conditions such as heavy or light Demand may be specified.

Voltage Support

Services provided by Generating Units or other equipment such as shunt capacitors, static var compensators, or synchronous condensers that are required to maintain established grid voltage criteria. This service is required under normal or System Emergency conditions.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 965

WAC Wheeling Access Charge

WECC Western Electricity Coordinating Council

Weekly Peak Demand Forecast

Demand Forecast of the highest Hourly Demand in a period beginning at the start of the hour ending 0100 on Sunday and ending at the end of the hour ending 2400 the following Saturday, in MW.

Western Electricity Coordinating Council (WECC)

The Western Electricity Coordinating Council or its successor.

Western Systems Coordinating Council The network of transmission lines embodied within the WECC region. The Western Systems Coordinating Council or its successor, the WECC.

(WSCC) **Western Systems Power**

Western Interconnection

An organization of participants in the electricity markets that have **Pool** developed and maintain the Western Systems Power Pool Agreement. **Western Systems Power** A standardized power sales agreement developed and maintained as a

Pool Agreement

FERC rate schedule by the Western Systems Power Pool.

Western Path 15 The Western Area Power Administration, Sierra Nevada Region (or its successor) with respect solely to its rights and interests in the Path 15 Upgrade.

Wheeling Wheeling Out or Wheeling Through.

Wheeling Access Charge (WAC)

The charge assessed by the CAISO that is paid by a Scheduling Coordinator for Wheeling in accordance with Section 26.1. Wheeling Access Charges shall not apply for Wheeling under a bundled noneconomy Energy coordination agreement of a Participating TO executed prior to July 9, 1996. The Wheeling Access Charge may consist of a High Voltage Wheeling Access Charge and a Low Voltage Wheeling Access Charge.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

FOURTH REPLACEMENT VOLUME NO. II

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Wheeling Out Except for Existing Rights exercised under an Existing Contract in

accordance with Section 16.1, the use of the CAISO Controlled Grid for the transmission of Energy from a Generating Unit located within the CAISO Controlled Grid to serve a Load located outside the transmission

and Distribution System of a Participating TO.

Wheeling Through Except for Existing Rights exercised under an Existing Contract in

accordance with Section 16.1, the use of the CAISO Controlled Grid for the transmission of Energy from a resource located outside the CAISO Controlled Grid to serve a Load located outside the transmission and

Distribution System of a Participating TO.

Wholesale Customer A person wishing to purchase Energy and Ancillary Services at a Bulk

Supply Point or a Scheduling Point for resale.

Wholesale Sales The sale of Energy and Ancillary Services at a Bulk Supply Point or a

Scheduling Point for resale.

WSCC Western Systems Coordinating Council

WSCC Reliability Criteria

Agreement

The Western Systems Coordinating Council Reliability Criteria

Agreement dated June 18, 1999 among the WSCC and certain of its

Member transmission operators, as such may be amended from time to

time.

CAISO TARIFF APPENDIX B Pro Forma Agreements

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

CAISO TARIFF APPENDIX B.1 Scheduling Coordinator Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Scheduling Coordinator Agreement

this A		IENT is made this day of,, and is entered into, by and				
(1)		Full legal name] having a registered or principal executive office at [address] (the "Scheduling Coordinator")				
and						
(2)	public l	CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION, a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate (the "CAISO").				
The So	heduling	g Coordinator and the CAISO are hereinafter referred to as the "Parties".				
Where	as:					
A.		Scheduling Coordinator has applied for certification by the CAISO under the certification edure referred to in Section 4.5.1 of the CAISO Tariff.				
B.		Scheduling Coordinator wishes to submit Bids for Energy and Ancillary Services on the CAISO colled Grid under the terms and conditions set forth in the CAISO Tariff.				
NOW I	T IS HEI	REBY AGREED as follows:				
1.	Definit	nitions and Interpretation.				
1,1		laster Definitions Supplement. Terms and expressions used in this Agreement shall have the ame meanings as those contained in the Master Definitions Supplement to the CAISO Tariff.				
1.2 Rules of Interpretation. The following rules of interpretation and conventions Agreement:		of Interpretation. The following rules of interpretation and conventions shall apply to this ment:				
	(a)	if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;				
	(b)	the singular shall include the plural and vice versa;				
	(c)	the masculine shall include the feminine and neutral and vice versa;				
	(d)	"includes" or "including" shall mean "including without limitation";				
	(e)	references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;				

- a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made:
- unless the context otherwise requires, references to any law shall be deemed references to (g) such law as it may be amended, replaced or restated from time to time;
- (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
- (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns:
- (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
- (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

2. Covenant of the Scheduling Coordinator.

2.1 The Scheduling Coordinator agrees that:

- The CAISO Tariff governs all aspects of bidding and scheduling of Energy and Ancillary 2.1.1 Services on the CAISO Controlled Grid, including (without limitation), the financial and technical criteria for Scheduling Coordinators, bidding, Settlement, information reporting requirements and confidentiality restrictions:
- 2.1.2 It will abide by, and will perform all of the obligations under the CAISO Tariff placed on Scheduling Coordinators in respect of all matters set forth therein including, without limitation, all matters relating to the bidding and scheduling of Energy and Ancillary Services on the CAISO Controlled Grid, obligations regarding Resource Adequacy Plans and other requirements of Section 40 of the CAISO Tariff applicable to Scheduling Coordinators for affected Load Serving Entities, ongoing obligations in respect of scheduling, Settlement, system security policy and procedures to be developed by the CAISO from time to time, billing and payments, confidentiality and dispute resolution;
- 2.1.3 It shall ensure that each UDC, over whose Distribution System Energy or Ancillary Services are to be transmitted in accordance with Bids submitted to the CAISO by the Scheduling Coordinator, enters into a UDC Operating Agreement in accordance with Section 4.4 of the CAISO Tariff;
- 2.1.4 It shall ensure that each Generator for which it submits Bids enters into a Participating Generator Agreement in accordance with Section 4.6 of the CAISO Tariff;
- 2.1.5 It shall have the primary responsibility to the CAISO, as principal, for all Scheduling Coordinator payment obligations under the CAISO Tariff;
- Its status as a Scheduling Coordinator is at all times subject to the CAISO Tariff. 2.1.6

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

2	T		T	
3.	ıerm	and	Termination	

- 3.1 This Agreement shall commence on the later of (a) _____ or (b) the date the Scheduling Coordinator is certified by the CAISO as a Scheduling Coordinator.
- 3.2 This Agreement may be terminated in accordance with the provisions of Section 4.5.4.4 and 4.5.4.5 of the CAISO Tariff; provided, however, any outstanding financial right or obligation or any other right or obligation under the CAISO Tariff of the Scheduling Coordinator that may have arisen under this Agreement, and any provision of this Agreement necessary to give effect to such right or obligation, shall survive such termination until satisfied. The CAISO shall timely file any notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC rules regarding termination.

4. Settlement Account.

4.1 The Scheduling Coordinator shall maintain at all times an account with a bank capable of Fed-Wire transfer to which credits or debits shall be made in accordance with the billing and Settlement provisions of Section 11 of the CAISO Tariff. Such account shall be the account as notified by the Scheduling Coordinator to the CAISO from time to time by giving at least 20 days written notice before the new account becomes operational, together with all information necessary for the CAISO's processing of a change in that account.

5. Agreement to be bound by CAISO Tariff.

5.1 The CAISO Tariff is incorporated herein and made a part hereof. In the event of a conflict between the terms and conditions of this Agreement and any other terms and conditions set forth in the CAISO Tariff, the terms and conditions of the CAISO Tariff shall prevail.

6. **Electronic Contracting.**

6.1 All submitted applications, schedules, Bids, confirmations, changes to information on file with the CAISO and other communications conducted via electronic transfer (e.g. direct computer link, FTP file transfer, bulletin board, e-mail, facsimile or any other means established by the CAISO) shall have the same legal rights, responsibilities, obligations and other implications as set forth in the terms and conditions of the CAISO Tariff as if executed in written format.

7. Penalties and Sanctions.

7.1 The Scheduling Coordinator shall be subject to all penalties made applicable to Scheduling Coordinators set forth in the CAISO Tariff.

8. Costs.

8.1 The Scheduling Coordinator shall be responsible for all its costs incurred for the purpose of meeting its obligations under this Agreement.

9. Dispute Resolution.

9.1 The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement.

10. Representation and Warranties.

10.1 Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.

11. Liability.

11.1 The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement.

12. Uncontrollable Forces.

12.1 Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement.

13. Miscellaneous.

- **13.1 Assignments.** Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 13.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 1. A Party must update the information in Schedule 1 of this Agreement as information changes. Such changes shall not constitute an amendment to this Agreement.

- 13.3 Waivers. Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 13.4 Governing Law and Forum. This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 13.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- **13.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 13.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.
- 13.8 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the Scheduling Coordinator shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **13.9 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 974

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

California Independent System Operator Corporation

By:					
Name:					
Title:					
Date:					
[Name of Scheduling Coordinator]					
[Name of Scheduling Coordinator]					
[Name of Scheduling Coordinator]					
[Name of Scheduling Coordinator] By:					
Ву:					

Issued on: December 21, 2007 Effective: March 31, 2008

SCHEDULE 1

NOTICES

[Section 7.1]

Scheduling Coordinator

Name of Primary
Representative:
Title:
Company:
Address:
City/State/Zip Code:
Email Address:
Phone:
Fax No:
Name of Alternative Representative:
Γitle:
Company:
Address:
City/State/Zip Code:
Email Address:
Phone:
N

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 976

CAISO

<u>Name of Primary</u> Representative:	
•	
Title:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
-ax:	
Name of Alternative Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
-āx:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

CAISO TARIFF APPENDIX B.2 Participating Generator Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[PARTICIPATING GENERATOR]

PARTICIPATING GENERATOR AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 979

PARTICIPATING GENERATOR AGREEMENT (PGA)

THIS AGRE	EEMENT is dated this day of,, and is entered into, by and between:
(1)	[Full Legal Name] having its registered and principal place of business located at [Address] (the "Participating Generator");
and	
(2)	California Independent System Operator Corporation, a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").

The Participating Generator and the CAISO are hereinafter referred to as the "Parties".

Whereas:

- A. The CAISO Tariff provides that the CAISO shall not accept Bids for Energy or Ancillary Services generated by any Generating Unit interconnected to the CAISO Controlled Grid, or to the Distribution System of a Participating TO or of a UDC otherwise than through a Scheduling Coordinator.
- B. The CAISO Tariff further provides that the CAISO shall not be obliged to accept Bids relating to Generation from any Generating Unit interconnected to the CAISO Controlled Grid unless the relevant Generator undertakes in writing to the CAISO to comply with all applicable provisions of the CAISO Tariff.
- C. The Participating Generator wishes to be able to submit Bids to the CAISO through a Scheduling Coordinator and, therefore, wishes to undertake to the CAISO that it will comply with the applicable provisions of the CAISO Tariff.
- D. The Parties are entering into this Agreement in order to establish the terms and conditions on which the CAISO and the Participating Generator will discharge their respective duties and responsibilities under the CAISO Tariff.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

ARTICLE I

DEFINITIONS AND INTERPRETATION

- **1.1 Master Definitions Supplement.** All terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.
- **1.2 Rules of Interpretation.** The following rules of interpretation and conventions shall apply to this Agreement:
 - (a) if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - (e) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made:
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
 - (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
 - (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
 - (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE II

ACKNOWLEDGEMENTS OF PARTICIPATING GENERATOR AND CAISO

- 2.1 CAISO Responsibility. The Parties acknowledge that the CAISO is responsible for the efficient use and reliable operation of the CAISO Controlled Grid consistent with achievement of planning and Operating Reserve criteria no less stringent than those established by the Western Electricity Coordinating Council and the North American Electric Reliability Corporation and further acknowledges that the CAISO may not be able to satisfy fully these responsibilities if the Participating Generator fails to fully comply with all of its obligations under this Agreement and the CAISO Tariff.
- 2.2 Scope of Application to Parties. The Participating Generator and CAISO acknowledge that all Generators, except those specified in Section 2.2.1 of this Agreement, wishing to submit Bids to the CAISO through a Scheduling Coordinator must sign this Agreement in accordance with Section 4.6 of the CAISO Tariff.
- 2.2.1 Exemption for Certain Generators. The Generator with an existing power purchase agreement with a UDC is not required to sign a Participating Generator Agreement if: (a) the Generator sells all of its Energy (excluding any Energy consumed by auxiliary Load equipment electrically connected to that Generator's Generating Unit at the same point) and Ancillary Services to the UDC; (b) the Generator sells any Energy through "over the fence" arrangements as authorized under Section 218(b) of the California Public Utilities Code; or (c) the Generator employs landfill gas technology for the generation of electricity as authorized under 218(c) of the California Public Utilities Code. With respect to subsections (a) and (b), an existing power purchase agreement shall mean an agreement which has been entered into and is effective as of December 20, 1995. With respect to subsection (c), an existing power purchase agreement shall mean an agreement which has been entered into and is effective as of December 31, 1996.

ARTICLE III

TERM AND TERMINATION

3.1 Effective Date. This Agreement shall be effective as of the later of the date it is executed by the Parties or the date accepted for filing and made effective by FERC, if such FERC filing is required, and shall remain in full force and effect until terminated pursuant to Section 3.2 of this Agreement.

3.2 Termination

3.2.1 Termination by CAISO. Subject to Section 5.2, the CAISO may terminate this Agreement by giving written notice of termination in the event that the Participating Generator commits any material default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given, to the Participating Generator, written notice of the default, unless excused by reason of Uncontrollable Forces in accordance with

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Article X of this Agreement. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

3.2.2 **Termination by Participating Generator.** In the event that the Participating Generator no longer wishes to submit Bids and transmit Energy over the CAISO Controlled Grid, it may terminate this Agreement, on giving the CAISO not less than ninety (90) days written notice, provided, however, that in accordance with Section 4.1.3, the Participating Generator may modify Schedule 1 to eliminate Generating Units which it no longer owns or no longer has contractual entitlement to and such modification shall be effective upon receipt by the CAISO. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within thirty (30) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the Participating Generator's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE IV

GENERAL TERMS AND CONDITIONS

4.1 Generating Units

- **4.1.1 Identification of Generating Units.** The Participating Generator has identified the Generating Units that it owns, operates or has a contractual entitlement to in Schedule 1, as required by Section 4.6.4 of the CAISO Tariff.
- **4.1.2 Technical Characteristics.** The Participating Generator has provided to the CAISO in Schedule 1 the required information regarding the capacity and operating characteristics of each of the Generating Units listed in that schedule. Pursuant to Sections 8.9 and 8.10 of the CAISO Tariff, the CAISO may verify, inspect and test the capacity and operating characteristics provided in Schedule 1.

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- Notification of Changes. Sixty (60) days prior to changing any technical information in Schedule 1, the Participating Generator shall notify the CAISO of the proposed changes. Pursuant to Sections 8.9 and 8.10 of the CAISO Tariff, the CAISO may verify, inspect and test the capacity and operating characteristics provided in the revised Schedule 1. The CAISO shall post on the CAISO Website a schedule showing, for at least one year in advance: (i) the proposed dates on which the CAISO's Master File will be updated, which dates shall occur at least every three months: (ii) the dates on which the information contained in the revised Master File will become effective; and (iii) the deadlines by which changed technical information must be submitted to the CAISO in order to be tested and included in the next scheduled update of the CAISO's Master File. Unless the Participating Generator fails to test at the values in the proposed change(s), the change will become effective upon the effective date for the next scheduled update of the Master File, provided the Participating Generator submits the changed information by the applicable deadline and is tested by the deadline. Subject to such notification this Agreement shall not apply to any generating unit identified in Schedule 1 which the Participating Generator no longer owns or no longer has contractual entitlement to.
- 4.2 Agreement Subject to CAISO Tariff. The Parties will comply with all applicable provisions of the CAISO Tariff. This Agreement shall be subject to the CAISO Tariff which shall be deemed to be incorporated herein.
- 4.3 **Obligations Relating to Ancillary Services**
- 4.3.1 Submission of Bids. When the Scheduling Coordinator on behalf of the Participating Generator submits a Bid, the Participating Generator will, by the operation of this Section 4.3.1, warrant to the CAISO that it has the capability to provide that service in accordance with the CAISO Tariff and that it will comply with CAISO Dispatch Instructions for the provision of the service in accordance with the CAISO Tariff.
- 4.3.2 Certification. The Participating Generator shall not use a Scheduling Coordinator to submit a Bid for the provision of an Ancillary Service or submit a Submission to Self-Provide an Ancillary Service unless the Scheduling Coordinator serving that Participating Generator is in possession of a current certificate pursuant to Sections 8.3.4 and 8.4 of the CAISO Tariff.
- 4.4 **Obligations relating to Major Incidents**
- Major Incident Reports. The Participating Generator shall promptly provide such information as 4.4.1 the CAISO may reasonably request in relation to major incidents, in accordance with Section 4.6.7.3 of the CAISO Tariff.

ARTICLE V

PENALTIES AND SANCTIONS

5.1 Penalties. If the Participating Generator fails to comply with any provisions of this Agreement, the CAISO shall be entitled to impose penalties and sanctions on the Participating Generator. No penalties or sanctions may be imposed under this Agreement unless a Schedule or CAISO Tariff

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Issued on: December 21, 2007

provision providing for such penalties or sanctions has first been filed with and made effective by FERC. Nothing in the Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the Participating Generator to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the Participating Generator.

5.2 Corrective Measures. If the Participating Generator fails to meet or maintain the requirements set forth in this Agreement and/or the CAISO Tariff, the CAISO shall be permitted to take any of the measures, contained or referenced in the CAISO Tariff, which the CAISO deems to be necessary to correct the situation.

ARTICLE VI

COSTS

Operating and Maintenance Costs. The Participating Generator shall be responsible for all its costs incurred in connection with operating and maintaining the Generating Units identified in Schedule 1 for the purpose of meeting its obligations under this Agreement.

ARTICLE VII

DISPUTE RESOLUTION

7.1 Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE VIII

REPRESENTATIONS AND WARRANTIES

- **8.1** Representation and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- **8.2 Necessary Approvals.** The Participating Generator represents that all necessary leases, approvals, permits, licenses, easements, rights of way or access to install, own and/or operate its Generating Units have been or will be obtained by the Participating Generator prior to the effective date of this Agreement.

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ARTICLE IX

LIABILITY

9.1 Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE X

UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE XI

MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 3. A Party must update the information in Schedule 3 of this Agreement as information changes. Such changes shall not constitute an amendment to this Agreement.
- 11.3 Waivers. Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

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- 11.4 Governing Law and Forum. This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- **11.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 11.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

11.8 [NOT USED]

- 11.9 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the Participating Generator shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **11.10 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

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Issued on: December 21, 2007

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 987

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

Ву:	
Name:	
Title:	
[NAME	OF PARTICIPATING GENERATOR]
Ву:	
Name:	
Title:	
Date:	

[The following page is a placeholder for Schedule 1, Section 1.]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

[The following page is a placeholder for Schedule 1, Section 2.]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

SCHEDULE 2

CAISO IMPOSED PENALTIES AND SANCTIONS Section 5.1

TO BE INSERTED UPON FERC APPROVAL

SCHEDULE 3

NOTICES Section 11.2

Participating Generator

Name of Primary	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 992

CAISO

Name of Primary	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	

CAISO TARIFF APPENDIX B.3 Qualifying Facility Participating Generator Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[name of QF PARTICIPATING GENERATOR]

QUALIFYING FACILITY PARTICIPATING GENERATOR AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

QUALIFYING FACILITY PARTICIPATING GENERATOR AGREEMENT (QF PGA)

THIS AGE	REEMENT is dated this day of, and is entered into, by and between:
(1)	[Full Legal Name], having its registered and principal place of business located at [Address] (the "Participating Generator");
and	
(2)	California Independent System Operator Corporation, a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").
The Partic	sipating Generator and the CAISO are hereinafter referred to as the "Parties".

Whereas:

- A. The CAISO Tariff provides that the CAISO shall not accept Bids for Energy or Ancillary Services generated by any Generating Unit interconnected to the CAISO Controlled Grid, or to the Distribution System of a Participating TO or of a UDC or MSS Operator otherwise than through a Scheduling Coordinator.
- В. The CAISO Tariff further provides that the CAISO shall not be obliged to accept Bids relating to Generation from any Generating Unit interconnected to the CAISO Controlled Grid unless the relevant Generator undertakes in writing to the CAISO to comply with all applicable provisions of the CAISO Tariff.
- C. The Participating Generator wishes to be able to submit Bids, from a Qualifying Facility Net Scheduled QF to the CAISO through a Scheduling Coordinator and, therefore, wishes to undertake to the CAISO that it will comply with the applicable provisions of the CAISO Tariff, except as otherwise specified in this Agreement.
- D. It is the intent of the Parties that this Agreement will harmonize the special operational characteristics of the Participating Generator's Qualifying Facility with the CAISO's grid operation function. Nothing in this Agreement is intended to limit or restrict the rights of the Participating Generator under Section 4.6.3.2 of the CAISO Tariff.
- E. The Parties are entering into this Agreement in order to establish the terms and conditions on which the CAISO and the Participating Generator will discharge their respective duties and responsibilities under the CAISO Tariff.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

ARTICLE I

DEFINITIONS AND INTERPRETATION

- **1.1 Master Definitions Supplement.** Unless defined in this Agreement, all capitalized terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.
- **1.2** Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:
 - (a) if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency, except as expressly provided otherwise in this Agreement;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - (e) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made:
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
 - (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
 - (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
 - (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE II

ACKNOWLEDGEMENTS OF PARTICIPATING GENERATOR AND CAISO

- 2.1 **CAISO Responsibility.** The Parties acknowledge that the CAISO is responsible for the efficient use and reliable operation of the CAISO Controlled Grid consistent with achievement of planning and Operating Reserve criteria no less stringent than those established by the Western Electricity Coordinating Council and the North American Electric Reliability Corporation and further acknowledges that the CAISO may not be able to satisfy fully these responsibilities if the Participating Generator fails to fully comply with all of its obligations under this Agreement.
- 2.2 Scope of Application to Parties. The Participating Generator and CAISO acknowledge that all Qualifying Facility Generators, except those specified in Section 2.2.1 of this Agreement, wishing to submit Bids, to the CAISO through a Scheduling Coordinator shall first execute this Agreement or the standard Participating Generator Agreement applicable to non-QF Generators. The Parties acknowledge that execution of this Agreement by the Participating Generator satisfies the requirement of a written agreement as set forth in Section 4.6 of the CAISO Tariff.
- 2.2.1 Exemption for Certain Generators. The Generator with a Net Scheduled QF with an existing power purchase agreement with a UDC is not required to sign a QF Participating Generator Agreement if: (a) the Generator sells all of its Energy (excluding any Energy consumed by auxiliary Load equipment electrically connected to that Net Scheduled QF at the same point) and Ancillary Services to the UDC; (b) the Generator sells any Energy through "over the fence" arrangements as authorized under Section 218(b) of the California Public Utilities Code; or (c) the Generator employs landfill gas technology for the generation of electricity as authorized under 218(c) of the California Public Utilities Code. With respect to subsections (a) and (b), an existing power purchase agreement shall mean an agreement which has been entered into and is effective as of December 20, 1995. With respect to subsection (c), an existing power purchase agreement shall mean an agreement which has been entered into and is effective as of December 31, 1996.

ARTICLE III

TERM AND TERMINATION

3.1 Effective Date. This Agreement shall remain in full force and effect until terminated pursuant to Section 3.2 of this Agreement and shall be effective as of the later of: (1) the date the Agreement is executed by the Parties; or (2) where the Participating Generator is a party to an existing Participating Generator Agreement, the date upon which termination of the existing Participating Generator Agreement is accepted for filing and made effective by FERC, if such FERC filing is required; or (3) where the Participating Generator is a party to an existing Participating Generator Agreement and this Agreement is required to be filed with FERC for acceptance, the later of the date upon which termination of the existing Participating Generator Agreement is accepted for filing and made effective by FERC, or the date this Agreement is accepted for filing and made effective by FERC.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

3.2 Termination

- 3.2.1 **Termination by CAISO.** Subject to Section 5.2, the CAISO may terminate this Agreement by giving written notice of termination in the event that the Participating Generator commits any material default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given, to the Participating Generator, written notice of the default, unless excused by reason of Uncontrollable Forces in accordance with Article X of this Agreement. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.
- 3.2.2 Termination by Participating Generator. In the event that the Participating Generator no longer wishes to submit Bids and transmit Energy or provide Ancillary Services through a Scheduling Coordinator over the CAISO Controlled Grid, it may terminate this Agreement, on giving the CAISO not less than ninety (90) days written notice, provided, however, that in accordance with Section 4.1.3, the Participating Generator may modify Schedule 1 to eliminate generating resources which it no longer owns or no longer has contractual entitlement to and such modification shall be effective upon receipt by the CAISO. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within thirty (30) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the Participating Generator's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE IV

GENERAL TERMS AND CONDITIONS

4.1 Net Scheduled QFs

4.1.1 Identification of Net Scheduled QF. The Participating Generator has identified the Net Scheduled QF that it owns, operates or has a contractual entitlement to, in Schedule 1, as required by Section 4.6.4 of the CAISO Tariff.

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- 4.1.2 Technical Characteristics. The Participating Generator shall provide to the CAISO the required information regarding operating contacts, rated capacity, and operating characteristics of the Net Scheduled QF. Pursuant to Sections 8.9 and 8.10 of the CAISO Tariff, and the Existing QF Contract, if any, associated with that Net Scheduled QF, the CAISO may verify, inspect and test the capacity and operating characteristics of the Net Scheduled QF. The performance of such inspection or test shall be conducted at a time mutually agreed upon by the Parties, which agreement shall not unreasonably be withheld.
- 4.1.3 Notification of Changes. Sixty (60) days prior to changing any technical information in Schedule 1, the Participating Generator shall notify the CAISO of the proposed changes. Pursuant to Sections 8.9 and 8.10 of the CAISO Tariff, the CAISO may verify, inspect and test the capacity and operating characteristics; provided that the performance of such inspection or test is conducted at a time mutually agreed upon by the Parties, which agreement shall not unreasonably be withheld. The CAISO shall post on the CAISO Website a schedule showing, for at least one year in advance: (i) the proposed dates on which the CAISO's Master File will be updated, which dates shall occur at least every three months: (ii) the dates on which the information contained in the revised Master File will become effective; and (iii) the deadlines by which changed technical information must be submitted to the CAISO in order to be tested and included in the next scheduled update of the CAISO's Master File. Unless the Participating Generator fails to test at the values in the proposed change(s), the change will become effective upon the effective date for the next scheduled update of the Master File, provided the Participating Generator submits the changed information by the applicable deadline. Subject to such notification this Agreement shall not apply to any Net Scheduled QF identified in Schedule 1 which the Participating Generator no longer owns nor has contractual entitlement.
- **Agreement Subject to CAISO Tariff.** The Parties will comply with all applicable provisions of the CAISO Tariff except as expressly provided in Sections 4.2.1 through 4.2.5 of this Agreement.
- **4.2.1 Net Generation Metering.** Notwithstanding Section 10.1.3 of the CAISO Tariff, the Participating Generator may net the value for the Generation produced by each Net Scheduled QF listed in Schedule 1 and the value for the Demand of the Self-provided Load that is (i) served by the Net Scheduled QF and (ii) electrically located on the same side of the Point of Demarcation.
- **4.2.2 Meter and Telemetry Location.** The Participating Generator may satisfy the provisions of the CAISO Tariff for the installation of meters and telemetry by installing at the Point of Demarcation meters and telemetry for the purpose of recording the net impact of the Net Scheduled QF upon the CAISO Controlled Grid; provided that the installed meters and telemetry satisfy the technical functional and performance requirements for meters and telemetry set forth in the CAISO Tariff.
- **4.2.3 Scheduling, Billing and Settlement.** For scheduling, billing, and settlement purposes regarding Net Scheduled QF Self-provided Load, measurements shall be made at the Point of Demarcation.
- **4.2.4 Operating Limitations.** Net Scheduled QF operating limitations shall be set forth in Schedule 1 of this Agreement, the resource data template used for transmittal of Participating Generator technical data to the CAISO pursuant to the CAISO Tariff, or as otherwise mutually agreed to by the Parties.

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Issued on: December 21, 2007

Effective: March 31, 2008

4.2.5 Limitations on CAISO Operating Orders. The CAISO will not knowingly issue an operating order that: (1) requires the Participating Generator to reduce its Generation below the delineated Minimum Operating Limit, other than in a System Emergency; (2) conflicts with operating instructions provided by the Participating Generator; or (3) results in damage to the Participating Generator's equipment, provided that any such equipment limitation has been provided to the CAISO and incorporated in the Participating Generator's operating instructions to the CAISO. If the Participating Generator: (1) receives a Schedule which requires operation below the Minimum Operating Limit, and (2) deviates from that Schedule to continue to operate at the Minimum Operating Limit, it will not be subject to any penalties or sanctions as a result of operating at the Minimum Operating Limit. The Participating Generator's consequences for deviating from Schedules in Real-Time will be governed by the CAISO Tariff.

4.3 Obligations Relating to Ancillary Services

- **4.3.1 Submission of Bids.** When the Scheduling Coordinator on behalf of the Participating Generator submits a Bid for Ancillary Services, the Participating Generator will, by the operation of this Section 4.3.1, warrant to the CAISO that it has the capability to provide that service in accordance with the CAISO Tariff and that it will comply with CAISO Dispatch Instructions for the provision of the service in accordance with the CAISO Tariff.
- **4.3.2 Certification.** The Participating Generator shall not use a Scheduling Coordinator to submit a Bid for the provision of an Ancillary Service or submit a Submission to Self-Provide an Ancillary Service unless the Scheduling Coordinator serving that Participating Generator is in possession of a current certificate pursuant to Sections 8.3.4 and 8.4 of the CAISO Tariff.

4.4 Obligations relating to Major Incidents

- **4.4.1 Major Incident Reports.** The Participating Generator shall promptly provide such information as the CAISO may reasonably request in relation to major incidents, in accordance with Section 4.6.7.3 of the CAISO Tariff.
- 4.5 Dispatch and Curtailment. The CAISO shall only dispatch or curtail a Net Scheduled QF of the Participating Generator: (a) to the extent the Participating Generator bids Energy or Ancillary Services from the Net Scheduled QF into the CAISO's markets or the Energy is otherwise available to the CAISO under Section 40 or 43 of the CAISO Tariff; or (b) if the CAISO must dispatch or curtail the Net Scheduled QF in order to respond to an existing or imminent System Emergency or condition that would compromise CAISO Balancing Authority Area integrity or reliability as provided in Sections 7 and 7.6.1 of the CAISO Tariff.
- 4.6 Information to Be Provided by Participating Generator. The Participating Generator shall provide to the CAISO (a) a copy of the FERC order providing Qualifying Facility status to the Net Scheduled QF listed in Schedule 1, (b) a copy of any existing power purchase agreement with a UDC for the Net Scheduled QF listed in Schedule 1, and (c) a copy or a summary of the primary terms of any agreement for standby service with a UDC or MSS Operator. The Participating Generator shall notify the CAISO promptly of any change in the status of any of the foregoing.

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Issued on: December 21, 2007

Effective: March 31, 2008

ARTICLE V

PENALTIES AND SANCTIONS

- 5.1 Penalties. If the Participating Generator fails to comply with any provisions of this Agreement, the CAISO shall be entitled to impose penalties and sanctions on the Participating Generator. No penalties or sanctions may be imposed under this Agreement unless a Schedule or CAISO Tariff provision providing for such penalties or sanctions has first been filed with and made effective by FERC. Nothing in the Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the Participating Generator to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the Participating Generator.
- **5.2 Corrective Measures.** If the Participating Generator fails to meet or maintain the requirements set forth in this Agreement and/or in the CAISO Tariff as limited by the provisions of this Agreement, the CAISO shall be permitted to take any of the measures, contained or referenced in the CAISO Tariff, which the CAISO deems to be necessary to correct the situation.

ARTICLE VI

COSTS

Operating and Maintenance Costs. The Participating Generator shall be responsible for all its costs incurred in connection with operating and maintaining the Net Scheduled QF identified in Schedule 1 for the purpose of meeting its obligations under this Agreement.

ARTICLE VII

DISPUTE RESOLUTION

7.1 Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE VIII

REPRESENTATIONS AND WARRANTIES

- **8.1** Representation and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- **8.2 Necessary Approvals.** The Participating Generator represents that all necessary leases, approvals, permits, licenses, easements, rights of way or access to install, own and/or operate its Net Scheduled QF have been or will be obtained by the Participating Generator prior to the effective date of this Agreement.
- 8.3 Specific Warranty. The Participating Generator represents and warrants that: (1) the Net Scheduled QF listed in Schedule 1 is a Qualifying Facility or is operated as an integral part of a Qualifying Facility and (2) the Self-provided Load of the Participating Generator that is served by the Net Scheduling QF either has contracted for and continues through the term of this Agreement to have secured standby service from a UDC or MSS Operator under terms approved by the Local Regulatory Authority or the Federal Energy Regulatory Commission, as applicable, or that the Self-provided Load shall be curtailed concurrently with any Outage of the Generation serving that Self-provided Load in an amount sufficient to cover that Outage.

ARTICLE IX

LIABILITY

9.1 Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE X

UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE XI

MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 3. A Party must update the information in Schedule 3 of this Agreement as information changes. Such changes shall not constitute an amendment to this Agreement.
- 11.3 Waivers. Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 11.4 Governing Law and Forum. This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- **11.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

11.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

11.8 [NOT USED]

- 11.9 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. If the amendment does not require FERC approval, the amendment will be filed with FERC for information. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the Participating Generator shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **11.10 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.
- **11.11 Rights Reserved.** Execution of this Agreement does not deprive the Participating Generator of any unexpressed legal right, either under law or under an existing power purchase agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

Ву:	
Name:	
TNI A ME	OF PARTICIPATING GENERATOR]
[INAIVIE	OF FARTICIPATING GENERATOR
Ву:	
Name:	
Title:	

California Independent System Operator Corporation

[The following page is a placeholder for Schedule 1, Section 1.]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

SCHEDULE 2

CAISO IMPOSED PENALTIES AND SANCTIONS [Section 5.1]

TO BE INSERTED UPON FERC APPROVAL

SCHEDULE 3

NOTICES (Section 11.2)

Participating Generator

Name of Primary	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1009

CAISO

Name of Primary	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	

CAISO TARIFF APPENDIX B.4 Participating Load Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[PARTICIPATING LOAD]

PARTICIPATING LOAD AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1012

PARTICIPATING LOAD AGREEMENT (PLA)

THIS A	.GREEMENT is dated this	day of	, and is entered into, by and	between:
(1)	[Full legal name], havin (the "Participating Load"		ncipal place of business located at [lega	ıl address]
and				
(2)	corporation having a prir	ncipal executive office to I may from time to time	rporation, a California nonprofit public located at such place in the State of Calidesignate, initially 151 Blue Ravine Roa	ifornia as the
The Pa	rticipating Load and the CAIS	O are hereinafter referr	ed to as the "Parties".	
Where	as:			
A.		Controlled Grid, or to t	accept Bids for Ancillary Services from he Distribution System of a Participating ator.	
В.	The CAISO Tariff further pro Loads.	vides that Curtailable D	emand services shall be provided by Pa	articipating
C.		g Coordinator and, there	e Demand services, intends to submit E efore, represents to the CAISO that it w	
D.			er to establish the terms and conditions pir respective duties and responsibilities	
NOW T		of the mutual covenar	its set forth herein, THE PARTIES AGE	REE as

ARTICLE I

DEFINITIONS AND INTERPRETATION

- 1.1 Master Definitions Supplement. All terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.
- 1.2 Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:
- if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will (a) prevail to the extent of the inconsistency;
- (b) the singular shall include the plural and vice versa;
- (c) the masculine shall include the feminine and neutral and vice versa;
- "includes" or "including" shall mean "including without limitation"; (d)
- (e) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
- a reference to a given agreement or instrument shall be a reference to that agreement or (f) instrument as modified, amended, supplemented or restated through the date as of which such reference is made:
- unless the context otherwise requires, references to any law shall be deemed references to such (g) law as it may be amended, replaced or restated from time to time:
- unless the context otherwise requires, any reference to a "person" includes any individual, (h) partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
- (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
- any reference to a day, week, month or year is to a calendar day, week, month or year; and (j)
- the captions and headings in this Agreement are inserted solely to facilitate reference and shall (k) have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

ARTICLE II

ACKNOWLEDGEMENTS OF PARTICIPATING LOAD AND CAISO

- 2.1 CAISO Responsibility. The Parties acknowledge that the CAISO is responsible for the efficient use and reliable operation of the CAISO Controlled Grid consistent with achievement of planning and Operating Reserve criteria no less stringent than those established by the Western Electricity Coordinating Council and the North American Electric Reliability Corporation and further acknowledge that the CAISO may not be able to satisfy fully these responsibilities if the Participating Load fails to fully comply with all of its obligations under this Agreement and the CAISO Tariff.
- 2.2 Scope of Application to Parties. The Participating Load and CAISO acknowledge that all Loads which desire to submit Bids to the CAISO through a Scheduling Coordinator must be included in Schedule 1 to this Agreement. The Participating Load warrants that it owns, operates, or has sufficient contractual entitlement to provide Curtailable Demand services from such Loads in accordance with the CAISO Tariff.

ARTICLE III

TERM AND TERMINATION

3.1 Effective Date. This Agreement shall be effective as of the later of the date it is executed by the Parties or the date accepted for filing and made effective by FERC, if such FERC filing is required, and shall remain in full force and effect until terminated pursuant to Section 3.2 of this Agreement.

3.2 Termination

3.2.1 **Termination by CAISO.** Subject to Section 5.2, the CAISO may terminate this Agreement by giving written notice of termination in the event that the Participating Load commits any material default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given, to the Participating Load, written notice of the default, unless excused by reason of Uncontrollable Forces in accordance with Article X of this Agreement. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Termination by Participating Load. In the event that the Participating Load no longer wishes to submit Bids or transmit Energy over the CAISO Controlled Grid, it may terminate this Agreement, on giving the CAISO not less than ninety (90) days written notice, provided, however, that in accordance with Section 4.4, the Participating Load may modify Schedule 1 to eliminate Load which it no longer provides for and such modification shall be effective upon receipt by the CAISO. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within thirty (30) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the Participating Load's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE IV

GENERAL TERMS AND CONDITIONS

- 4.1 **Technical Characteristics.**
- Curtailable Demand. As required by Sections 8.3.4 and 8.4 of the CAISO Tariff, the Participating 4.1.1 Load shall provide the CAISO with all technical and operational information requested in Schedule 1 for each Curtailable Demand that it owns, operates, or has a contractual entitlement to. For those Loads designated by the Participating Load as providing Curtailable Demand, Schedule 1 requires the Participating Load to indicate in Schedule 1 whether the Load can be scheduled or bid as Non-Spinning Reserve. Pursuant to Sections 8.9 and 8.10 of the CAISO Tariff, the CAISO may verify. inspect and test the capacity and operating characteristics provided in Schedule 1 for Curtailable Demands.
- 4.2 Metering and Communication.
- 4.2.1 Curtailable Demand. Pursuant to Sections 8.4.5 and 8.4.6 of the CAISO Tariff, Curtailable Demand that is scheduled or bid as Non-Spinning Reserve is required to comply with the CAISO's communication and metering requirements.
- 4.3 **UDC Interruptible Load Programs.** Due to the CAISO's reliance on interruptible Loads to relieve System Emergencies and its contractual relationship with each UDC, the CAISO will not accept, and the Participating Load shall not submit Bids, from interruptible Loads which are subject to curtailment criteria established under existing retail tariffs, except under such conditions as may be specified in the CAISO Tariff.

- 4.4 Notification of Changes. Sixty (60) days prior to changing any technical information in Schedule 1, the Participating Load shall notify the CAISO of the proposed change(s). Pursuant to Sections 8.9 and 8.10 of the CAISO Tariff, the CAISO may verify, inspect and test the capacity and operating characteristics provided in the revised Schedule 1. The CAISO shall post on the CAISO Website a schedule showing, for at least one year in advance: (i) the proposed dates on which the CAISO's Master File will be updated; (ii) the dates on which the information contained in the revised Master File will become effective; and (iii) the deadlines by which changed technical information must be submitted to the CAISO in order to be tested and included in the next scheduled update of the CAISO's Master File. Unless the Load fails to test at the values in the proposed change(s), the Participating Load's proposed change(s) will become effective upon the effective date for the next scheduled update of the Master File, provided that the Participating Load submits the changed information by the applicable deadline and is tested by the deadline. Subject to such notification this Agreement shall not apply to any Loads identified in Schedule 1 which the Participating Load no longer owns or no longer has a contractual entitlement to.
- **4.5** Agreement Subject to CAISO Tariff. The Parties will comply with all applicable provisions of the CAISO Tariff. This Agreement shall be subject to the CAISO Tariff, which shall be deemed to be incorporated herein.
- 4.6 Obligations Relating to Ancillary Services
- 4.6.1 Submission of Bids and Self-provided Schedules. When the Scheduling Coordinator on behalf of the Participating Load submits a Bid the Participating Load will, by the operation of this Section 4.6.1, warrant to the CAISO that it has the capability to provide that service in accordance with the CAISO Tariff and that it will comply with CAISO Dispatch Instructions for the provision of the service in accordance with the CAISO Tariff.
- **4.6.2 Certification**. The Participating Load shall not use a Scheduling Coordinator to submit a Bid for the provision of an Ancillary Service or submit a Submission to Self-Provide an Ancillary Service unless the Scheduling Coordinator serving that Participating Load is in possession of a current Ancillary Service certificate pursuant to Sections 8.3.4 and 8.4 of the CAISO Tariff.
- 4.7 Obligations relating to Major Incidents. The Participating Load shall promptly provide such information as the CAISO may reasonably require in relation to the CAISO's investigations of operating situations or events, or for the CAISO's reporting to the authorities such as the FERC, California Public Utilities Commission, Western Electricity Coordinating Council, or North American Electric Reliability Corporation.

ARTICLE V

PENALTIES AND SANCTIONS

Penalties. If the Participating Load fails to comply with any provisions of this Agreement, the CAISO shall be entitled to impose penalties and sanctions on the Participating Load, including the penalties set forth in Sections 8.9.7 and 8.10.7 of the CAISO Tariff. No penalties or sanctions may be imposed under this Agreement unless a Schedule or CAISO Tariff provision providing for such penalties or sanctions has first been filed with and made effective by FERC. Nothing in this

Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the Participating Load to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the Participating Load.

5.2 Corrective Measures. If the Participating Load fails to meet or maintain the requirements set forth in this Agreement and/or the CAISO Tariff, the CAISO shall be permitted to take any of the measures, contained or referenced in the CAISO Tariff, which the CAISO deems to be necessary to correct the situation.

ARTICLE VI

COSTS

6.1 Operating and Maintenance Costs. The Participating Load shall be responsible for all its costs incurred in meeting its obligations under this Agreement for the Load identified in Schedule 1.

ARTICLE VII

DISPUTE RESOLUTION

7.1 **Dispute Resolution.** The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Load and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE VIII

REPRESENTATIONS AND WARRANTIES

- 8.1 Representation and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- 8.2 **Necessary Approvals.** The Participating Load represents that all necessary leases, approvals, permits, licenses, easements, rights of way or access to install, own and/or operate its Load have been or will be obtained by the Participating Load prior to the effective date of this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

ARTICLE IX

LIABILITY

9.1 Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the Participating Load and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE X

UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Load and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE XI

MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand, or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Load and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 3. A Party must update the information in Schedule 3 of this Agreement as information changes. Such changes shall not constitute an amendment to this Agreement.
- 11.3 Waivers. Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

- Governing Law and Forum. This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- 11.6 Merger. This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 11.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

11.8 [NOT USED]

- 11.9 **Amendments.** This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to the Federal Energy Regulatory Commission for a change in the rates, terms and conditions under section 205 of the Federal Power Act and pursuant to the Commission's Rules and Regulations promulgated thereunder, and the Participating Load shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

Ву:		
Name:		
_		
Particip	pating Load	
By:		
Tille.		
Date:		

SCHEDULE 1

Technical Characteristics of Individual or Aggregated Loads Participating under Participating Load Agreement

Name of	CAISO	Present	Capacity	Minimu	Maximum	Decreme	Ancillary	Participa	Limitations
			Available ¹				_	_	3
ALMDS	Resourc	Scheduling	Available	m	Operating	ntal	Service	nt in	
Facility or	e ID	Point		Operatin	Level ^{1,2}	Ramp	Provider	UDC	
Individual				g Level ¹		Rate ^{1,2}		Interrupt	
Load		(i.e. PNode,	(MW)		(MW)		(Yes or	ible	
		LAP, or		(MW)			No)	Program	(Yes or No)
		Custom LAP		` ′		(MW/min			,
		Oustolli EAI				(11111)		(Vac ar	
		,)		(Yes or	
								No)	

¹ Current effective values for purposes of bidding to provide Energy and/or Ancillary Services in CAISO markets may differ from those set forth in this Schedule 1, depending on the results of CAISO performance testing pursuant to Sections 8.9 and 8.10 of the CAISO Tariff.

² These values are subject to certification by the CAISO in accordance with Section 4.6.2 of the Participating Load Agreement.

³ If "Yes," limitations should be specified in the Participating Load's implementation plan.

SCHEDULE 2

CAISO IMPOSED PENALTIES AND SANCTIONS [Section 5.1]

TO BE INSERTED UPON FERC APPROVAL

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

SCHEDULE 3

NOTICES (Section 11.2)

Participating Load
Name of Primary
Representative:
Title:
Address:
City/State/Zip Code
Email Address:
Phone:
Fax No:
Name of Alternative
Representative:
Title:
Address:
City/State/Zip Code
Email Address:
Phone:
Fax No:

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1024

CAISO

Name of Primary
Representative:
Title:
Address:
City/State/Zip Code
Email Address:
Phone:
Fax No:
Name of Alternative
Representative:
Title:
Address:
City/State/Zip Code
Email Address:
Phone:
Fax No:

CAISO TARIFF APPENDIX B.5 Dynamic Scheduling Agreement for Scheduling Coordinators

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[SCHEDULING COORDINATOR]

DYNAMIC SCHEDULING AGREEMENT FOR SCHEDULING COORDINATORS

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

DYNAMIC SCHEDULING AGREEMENT FOR SCHEDULING COORDINATORS

THIS A	GREEMENT is dated this day of, and is entered into, by and between:
(1)	[Full Legal Name] having its registered and principal place of business located at [Address] (the "Scheduling Coordinator");
and	
(2)	California Independent System Operator Corporation, a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").
The Sc	neduling Coordinator and the CAISO are hereinafter referred to as the "Parties".
Wherea	s:
Α.	The CAISO Tariff provides that a Scheduling Coordinator may submit Dynamic Schedules to the CAISO from System Resources.
В.	The Scheduling Coordinator is currently Scheduling Coordinator for a System Resource associated with a power plant(s) interconnected in a Balancing Authority Area other than the CAISO Balancing Authority Area (the "Host Balancing Authority Area").
C.	The Scheduling Coordinator wishes to implement and operate a dynamic functionality that allows bidding dynamically from a System Resource into the CAISO Balancing Authority Area from the Host Balancing Authority Area and, therefore, wishes to undertake to the CAISO that it will comply with the applicable provisions of the CAISO Tariff.

D. The Parties are entering into this Agreement in order to establish the terms and conditions on which the CAISO and the Scheduling Coordinator will discharge their respective duties and responsibilities under the CAISO Tariff.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

ARTICLE I

DEFINITIONS AND INTERPRETATION

- **1.1 Master Definitions Supplement.** All terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.
- **1.2** Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:
 - (a) if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - (e) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made;
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
 - (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
 - (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
 - (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

ARTICLE II

ACKNOWLEDGEMENTS OF SCHEDULING COORDINATOR AND CAISO

2.1 CAISO Responsibility. The Parties acknowledge that the CAISO is responsible for the efficient use and reliable operation of the CAISO Controlled Grid consistent with achievement of planning and Operating Reserve criteria no less stringent than those established by the Western Electricity Coordinating Council and the North American Electric Reliability Corporation and further acknowledges that the CAISO may not be able to satisfy fully these responsibilities if the Scheduling Coordinator fails to fully comply with all of its obligations under this Agreement and the CAISO Tariff.

ARTICLE III

TERM AND TERMINATION

3.1 Effective Date. This Agreement shall be effective as of the date set forth above, unless accepted for filing and made effective by FERC on some other date, if FERC filing is required, and shall remain in full force and effect until terminated pursuant to Section 3.2 of this Agreement.

3.2 **Termination**

- 3.2.1 **Termination by CAISO.** Subject to Section 3.2.2, the CAISO may terminate this Agreement by giving written notice of termination in the event that the CAISO's agreement with the Host Balancing Authority has terminated or the Scheduling Coordinator commits any material default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given, to the Scheduling Coordinator, written notice of the default, unless excused by reason of Uncontrollable Forces in accordance with Article X of this Agreement. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.
- 3.2.2 Limitation on CAISO Termination. Notwithstanding the provisions of Section 3.2.1, in the event of noncompliance with the provisions of the CAISO Dynamic Scheduling Protocol, set forth in Appendix X of the CAISO Tariff, the CAISO shall have the right to terminate this Agreement after three (3) instances of noncompliance. In the event that the CAISO determines that the Scheduling Coordinator has failed to comply with the CAISO Dynamic Scheduling Protocol, the CAISO will provide written notice to that effect to the Scheduling Coordinator, and the Scheduling Coordinator

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shall have seven (7) days to correct the non-compliant condition(s). If the CAISO determines that Scheduling Coordinator has not corrected the non-compliant condition(s) within seven (7) days after the third notice of noncompliance, the CAISO may, by further written notice to the Scheduling Coordinator, terminate this Agreement and the existing functionality and arrangements described herein pursuant to Section 3.2.1, but without providing for the additional thirty (30)-day cure period otherwise provided in Section 3.2.1.

3.2.3 Termination by Scheduling Coordinator. In the event that the Scheduling Coordinator no longer wishes to submit dynamic Bids to the CAISO, it may terminate this Agreement, on giving the CAISO not less than ninety (90) days written notice. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within thirty (30) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the Scheduling Coordinator's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE IV

GENERAL TERMS AND CONDITIONS

- 4.1 **Dynamic Scheduling Requirements and Obligations**
- 4.1.1 The dynamic functionality established under this Agreement shall be implemented and operated in accordance with CAISO Tariff Section 4.5.4.3, other applicable provisions of the CAISO Tariff, all applicable NERC and WECC policies, requirements, and provisions, and the CAISO Dynamic Scheduling Protocol.
- 4.1.2 The maximum allowable dynamic power transfer (in MW) from the Scheduling Coordinator's System Resource(s) shall be as set forth in Schedule 1 and will be referred to as "PMax" in all CAISO scheduling and control systems.
- 4.1.3 The Scheduling Coordinator warrants that the power plant(s) listed in Schedule 1 is interconnected within the Host Balancing Authority Area specified in Schedule 1, placing both the plant(s) as well as the associated System Resource under the operational jurisdiction of the Host Balancing Authority.
- 4.1.4 The CAISO Intertie associated with the System Resource(s) is set forth in Schedule 1. The Scheduling Coordinator may request, and the CAISO may agree, at its sole discretion, to change the foregoing CAISO Intertie association, subject to any limitations set forth in the CAISO Dynamic Scheduling Protocol.
- 4.1.5 Unless explicitly agreed otherwise, dynamic functionalities implemented between the CAISO and the Scheduling Coordinator may provide only for imports from the System Resource(s) listed in Schedule 1 to the CAISO.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

- **4.1.6 Identification of System Resources.** The Scheduling Coordinator has identified the System Resources that it represents in Schedule 1.
- 4.1.7 Notification of Changes. Sixty (60) days prior to changing any technical information in Schedule 1, the Scheduling Coordinator shall notify the CAISO of the proposed changes. Pursuant to Sections 8.9 and 8.10 of the CAISO Tariff, the CAISO may verify, inspect and test the capacity and operating characteristics provided in the revised Schedule 1. Unless the Scheduling Coordinator fails to test at the values in the proposed change(s), the change will become effective upon the effective date for the next scheduled update of the CAISO's Master File, provided the Scheduling Coordinator submits the changed information by the applicable deadline and is tested by the deadline.
- **4.2 Agreement Subject to CAISO Tariff.** The Parties will comply with all applicable provisions of the CAISO Tariff, including Sections 4.5.4.3 and 8.4.5. This Agreement shall be subject to the CAISO Tariff, which shall be deemed to be incorporated herein.
- 4.3 Obligations Relating to Ancillary Services
- **4.3.1 Submission of Bids.** When the Scheduling Coordinator submits a Bid for Ancillary Services, the Scheduling Coordinator will, by the operation of this Section 4.3.1, warrant to the CAISO that it has the capability to provide that service in accordance with the CAISO Tariff and that it will comply with CAISO Dispatch Instructions for the provision of the service in accordance with the CAISO Tariff.

ARTICLE V

PENALTIES AND SANCTIONS

- 5.1 Uninstructed Deviations. Except for operating emergency situations, Real-Time Energy transfers may not vary from the Day-Ahead Schedule as adjusted by any Dispatch Instructions by more than the greater of five (5) MW or three percent (3%) of the net dependable capacity (PMax) of the System Resource, integrated across a ten-minute interval. If such defined performance band is exceeded by any amount in more than five percent (5%) of the ten-minute intervals on three successive days, then such deviations shall constitute one event of non-compliance with the CAISO Dynamic Scheduling Protocol pursuant to Section 3.2.2. Deviations from Dynamic Schedules of Energy will also be subject to Uninstructed Deviation Penalties pursuant to Section 11.23 and related provisions of the CAISO Tariff.
- **General.** The Scheduling Coordinator shall be subject to all penalties made applicable to dynamic imports from System Resources set forth in the CAISO Tariff.

ARTICLE VI

COSTS

Operating and Maintenance Costs. The Scheduling Coordinator shall be responsible for all its costs incurred in connection with dynamic scheduling and compliance by the System Resources identified in Schedule 1 for the purpose of meeting its obligations under this Agreement.

ARTICLE VII

DISPUTE RESOLUTION

7.1 Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE VIII

REPRESENTATIONS AND WARRANTIES

8.1 Representation and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.

ARTICLE IX

LIABILITY

9.1 Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE X

UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE XI

MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 2. A Party must update the information in Schedule 2 of this Agreement as information changes. Such changes shall not constitute an amendment to this Agreement.
- 11.3 Waivers. Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 11.4 Governing Law and Forum. This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- **11.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.

Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

11.8 [NOT USED]

- 11.9 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the Scheduling Coordinator shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **Counterparts.** This Agreement may be executed in one or more counterparts at different times. each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

NAME OF SCHEDULING COORDINATOR

Ву:	
Name:	
ivailie.	
Title:	
Date:	

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SCHEDULE 1

SYSTEM RESOURCES AND BALANCING AUTHORITY AREA INFORMATION [Sections 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.7]

Description of System Resource(s), including Associated Power Plants and PMax Values:
CAISO Intertie:
Host Balancing Authority Area:
Intermediary Balancing Authority Areas:

SCHEDULE 2

NOTICES [Section 11.2]

Scheduling Coordinator

Name of Primary Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code	
Email Address:	
Phone:	
Fax No:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

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CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1038

CAISO

CAISO TARIFF APPENDIX B.6 Meter Service Agreement for CAISO Metered Entities

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[CAISO METERED ENTITY]

METER SERVICE AGREEMENT FOR CAISO METERED ENTITIES

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

METER SERVICE AGREEMENT FOR CAISO METERED ENTITIES

THIS A	GREEMENT is dated this day of, and is entered into, by and between:
(1)	[Full legal name] having its registered and principal place of business located at [Address] (the "CAISO Metered Entity");
and	
(2)	California Independent System Operator Corporation, a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California a the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").
The CA	ISO Metered Entity and the CAISO are hereinafter referred to as the "Parties".
Wherea	as:
Α.	Section 10 of the CAISO Tariff requires the CAISO to establish meter service agreements with CAISO Metered Entities for the collection and transfer of Meter Data.
B.	Section 10 of the CAISO Tariff further provides that a CAISO Metered Entity shall certify its revenue quality meters and Section 10 provides that CAISO Metered Entities shall make Meter Data available to RMDAPS.
C.	The Parties are entering into this Agreement in order to establish the terms and conditions upon which the CAISO and the CAISO Metered Entity shall discharge their respective duties and responsibilities pursuant to this Agreement, and the CAISO Tariff.
D.	All obligations and responsibilities included in this Agreement may be set forth in further detail in the CAISO Tariff.
NOW T	HEREFORE, in consideration of the mutual covenants set forth herein, THE PARTIES AGREE as
	ARTICLE I

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Definitions Supplement to the CAISO Tariff.

1.1

Issued on: December 21, 2007 Effective: March 31, 2008

Master Definitions Supplement. Unless defined in Section 1.2 of this Agreement, all terms and expressions used in this Agreement shall have the same meaning as those contained in the Master

- **1.2 Special Definitions for this Agreement**. In this Agreement, the following words and expressions shall have the meanings set forth below:
- **1.2.1** "Authorized Users" means users authorized by the CAISO Metered Entity to access the Meter Data of that CAISO Metered Entity held by the CAISO.
- **1.3** Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:
 - (a) if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - (e) references to a section, article or schedule shall mean a section, article or a schedule of this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made:
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
 - unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
 - (j) any reference to a day, week, month or year is to a calendar day, week, month or year;
 - (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement; and
 - (I) references to the CAISO Tariff and other CAISO Documents shall be interpreted in accordance with any exceptions or exemptions to such as may have been granted by the CAISO.

ARTICLE II

TERM AND TERMINATION

2.1 Effective Date. This Agreement shall be effective as of the later of the date of execution of this Agreement, or the date it is accepted and made effective by FERC, if such FERC filing is required, and shall remain in full force and effect until terminated by operation of law or pursuant to Section 2.2 of this Agreement.

2.2 Termination

- 2.2.1 **Termination by CAISO.** Subject to Section 4.2, the CAISO may terminate this Agreement by giving written notice of termination in the event that the CAISO Metered Entity commits any default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given it written notice of the default, unless excused by reason of Uncontrollable Force in accordance with Section 14.1 of the CAISO Tariff. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.
- 2.2.2 Termination by CAISO Metered Entity. In the event that the CAISO Metered Entity wishes to terminate this Agreement, the CAISO Metered Entity shall give the CAISO not less than ninety (90) days written notice. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within thirty(30) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the CAISO Metered Entity's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE III

GENERAL TERMS AND CONDITIONS

3.1 Agreement Subject to CAISO Tariff. This Agreement shall be subject to the provisions of the CAISO Tariff which shall be deemed to be incorporated herein, as the same may be changed or superseded from time to time. The Parties agree that they will comply with the provisions of Section 10 and all other applicable provisions of the CAISO Tariff and the applicable Business Practice Manual implementing Section 10 of the CAISO Tariff.

- 3.2 Obligations and Rights of the CAISO Metered Entity.
- **3.2.1** Submission of Meter Data through RMDAPS. The CAISO Metered Entity agrees to make available to the CAISO through RMDAPS its Meter Data in accordance with the CAISO Tariff. The CAISO's requirements regarding the frequency with which it requires Meter Data to be made available to it through RMDAPS by the CAISO Metered Entity are referred to in the CAISO Tariff.
- 3.2.2 Meter Information. The CAISO Metered Entity shall provide in the format prescribed by Schedule 1 to this Agreement the required information with respect to all of its meters used to provide Meter Data to the CAISO. The CAISO Metered Entity must immediately notify the CAISO of any changes to the information provided to the CAISO in accordance with this Section 3.2.2 and provide the CAISO with any information in relation to such change as reasonably requested by the CAISO. The CAISO Metered Entity shall have the right to modify Schedule 1, which modification shall not constitute an amendment to this Agreement. Such modification shall be effective upon receipt of notice by the CAISO.
- **3.2.3** Transformer and Line Loss Correction Factors. If the CAISO Metered Entity uses low voltage side metering or metering connected to the Distribution System, it shall use the CAISO approved Transformer and Line Loss Correction Factor referred to in the CAISO Tariff and in the applicable Business Practice Manual.
- 3.2.4 Rights to Access Metering Facilities. The CAISO Metered Entity shall use its best efforts to procure any rights necessary for the CAISO to access all Metering Facilities of the CAISO Metered Entity to fulfill its obligations under the CAISO Tariff and its obligations under this Agreement. If, after using its best efforts, the CAISO Metered Entity is unable to provide the CAISO with such access rights, the CAISO Metered Entity shall ensure that one of its employees is a CAISO Authorized Inspector and such employee undertakes, at the CAISO's request, the certification, testing, inspection and/or auditing of those Metering Facilities in accordance with the procedures established pursuant to the CAISO Tariff, including the requirement to complete and provide to the CAISO all necessary documentation. The CAISO acknowledges that it will not be prevented from fulfilling its obligations under the CAISO Tariff or this Agreement by reason of the fact that it is provided with escorted access to the Metering Facilities of the CAISO Metered Entity.
- **3.2.5 Security and Validation Procedures.** The security measures and the validation, editing and estimation procedures that the CAISO will apply to Meter Data made available to the CAISO by the CAISO Metered Entity shall be as referred to in the CAISO Tariff.
- 3.3 Obligations and Rights of the CAISO.
- **3.3.1 Direct Polling of RMDAPS.** The CAISO shall allow the Scheduling Coordinator representing the CAISO Metered Entity and all Authorized Users to directly poll RMDAPS for the Meter Data relating to the CAISO Metered Entity in accordance with the procedures referred to in the CAISO Tariff.
- 3.3.2 CAISO as Third-Party Beneficiary. The CAISO shall be a third-party beneficiary to any future agreement between the CAISO Metered Entity and any other party relating to the Metering Facilities of the CAISO Metered Entity for the purpose of granting the CAISO access to any relevant information, records and facilities as needed by the CAISO to fulfill its obligations under the CAISO Tariff and its obligations under this Agreement.

- **3.3.3** Remote and Local Access to Metering Data. The CAISO shall provide the CAISO Metered Entity any password or other requirements necessary for the CAISO Metered Entity to access its Meter Data remotely or locally at the meter.
- **3.4 Exemptions Granted by the CAISO.** Any exemptions provided for under the CAISO Tariff that are granted by the CAISO shall be set forth in Schedule 2 of this Agreement. Any amendment or addition to Schedule 2 shall not constitute an amendment to this Agreement.

ARTICLE IV

PENALTIES AND SANCTIONS

- 4.1 Penalties. If a CAISO Metered Entity provides inaccurate or incorrect Meter Data or fraudulent Meter Data to the CAISO, the CAISO shall be entitled to impose penalties and sanctions, including but not limited to suspension of trading rights following 14 days written notice to the CAISO Metered Entity. Fraudulent Meter Data means any Meter Data provided to the CAISO by the CAISO Metered Entity that it knows to be false, incorrect or incomplete at the time it provided that Meter Data to the CAISO. All penalties and sanctions shall be set forth in Schedule 4 Part A to this Agreement or in the CAISO Tariff. No penalties or sanctions, including suspension of trading rights, may be imposed under this Agreement unless a Schedule or CAISO Tariff provision providing for such penalties or sanctions has first been filed with and made effective by FERC. Nothing in the Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the CAISO Metered Entity to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the CAISO Metered Entity.
- 4.2 Corrective Measures. If the CAISO Metered Entity fails to meet or maintain the standards for Metering Facilities or comply with the audit or test procedures as referred to in the CAISO Tariff, the CAISO shall be permitted to take corrective measures. The corrective measures and rights the CAISO may exercise upon any failure by any entity to meet those standards for Metering Facilities or to comply with the audit or test procedures shall be set forth in Schedule 4 Part B or in the CAISO Tariff.

ARTICLE V

ACCESS TO METERING DATA

5.1 Authorized Users. In addition to the persons referred to in the CAISO Tariff, including the CAISO Metered Entity and the relevant Scheduling Coordinator, as being entitled to access Meter Data on RMDAPS, the CAISO Metered Entity may set forth in Schedule 3 of this Agreement any additional Authorized Users that shall be entitled to access the CAISO Metered Entity's Settlement Quality Meter Data held by the CAISO. The CAISO Metered Entity shall include in Schedule 3 as Authorized Users the relevant UDCs and TOs. The CAISO shall provide the Authorized Users with any password or other information necessary to access the CAISO Metered Entity's Settlement Quality Metered Data held by the CAISO on RMDAPS. Any amendment or addition to Schedule 3 shall not constitute an amendment to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE VI

COSTS

6.1 Certification, Inspection and Auditing of Meters. The CAISO Metered Entity shall be responsible for all reasonable costs incurred by the CAISO or a CAISO Authorized Inspector in connection with them carrying out the certification, inspection, testing or auditing of the meters identified in Schedule 1 from which the CAISO Metered Entity provides Meter Data to the CAISO. The CAISO or CAISO Authorized Inspector will furnish the CAISO Metered Entity, upon request, an itemized bill for such costs.

ARTICLE VII

DISPUTE RESOLUTION

7.1 Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that all reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the CAISO Metered Entities and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE VIII

REPRESENTATIONS AND WARRANTIES

- **8.1** Representations and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- **8.2 Necessary Approvals.** The CAISO Metered Entity represents that all necessary approvals, permits, licenses, easements, right of way or access to install, own and operate its meters have been or will be obtained by the CAISO Metered Entity prior to the effective date of this Agreement.

ARTICLE IX

LIABILITY AND INDEMNIFICATION

9.1 Liability and Indemnification. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the CAISO Metered Entity and references to the CAISO Tariff shall be read as references to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE X

UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as references to the CAISO Metered Entity and all references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE XI

MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the CAISO Metered Entity and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 5. A Party must update the information in Schedule 5 as information changes. Such changes shall not constitute an amendment to this Agreement.
- Waivers. Any waiver at any time by either Party of its rights with respect to any default under this 11.3 Agreement, or with respect to any other matter arising in connection with this Agreement, shall not be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- Governing Law and Forum. This Agreement shall be deemed to be a contract made under and 11.4 for all purposes shall be governed by and construed in accordance with the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

- **11.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 11.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.
- 11.8 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that are subject to FERC approval shall not take effect until FERC has accepted such amendments for filing and has made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the CAISO Metered Entity shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **11.9 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

California Independent System Operator Corporation

Ву:	
Name:	
Title:	
Date:	
Full leg	gal name of CAISO Metered Entity
Full leg	gal name of CAISO Metered Entity
_	gal name of CAISO Metered Entity
Ву:	·
By: Name:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

SCHEDULE 1 METER INFORMATION [Section 3.2.2]

Resource ID/Meter Number	
Name of the Facility	
Location (address if applicable)	
Point of Delivery to the CAISO	
Controlled Grid for Meter Compe	nsation:

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

SCHEDULE 2

EXEMPTIONS FROM METERING STANDARDS AND OTHER REQUIREMENTS [Section 3.4]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

SCHEDULE 3

ACCESS TO METER DATA AND AUTHORIZED USERS [Section 5.1]

List authorized users and any restrictions or limitations placed on them.

Issued on: December 21, 2007 Effective: March 31, 2008

SCHEDULE 4 PART A CAISO IMPOSED PENALTIES AND SANCTIONS [Section 4.1]

TO BE INSERTED UPON FERC APPROVAL

PART B
CORRECTIVE MEASURES
[SECTION 4.2]

TO BE DEVELOPED

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 21, 2007 Effective: March 31, 2008

SCHEDULE 5

NOTICE [Section 11.2]

Name of Primary	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
ax:	
Name of Alternative	
Representative:	
Γitle:	
Company:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
-ax:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1055

CAISO:

Name of Primary	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
Fax:	
Name of Alternative	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
Fax:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

CAISO TARIFF APPENDIX B.7 Meter Service Agreement for Scheduling Coordinators

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[SC]

METER SERVICE AGREEMENT FOR SCHEDULING COORDINATORS

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

METER SERVICE AGREEMENT FOR SCHEDULING COORDINATORS

THIS AGR	EEMENT is dated this day of, and is entered into, by and between:
(1)	[Full legal name] having its registered and principal place of business located at [Address] (the "SC");
and	
(2)	California Independent System Operator Corporation, a California non-profit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").

The Scheduling Coordinator and the CAISO are hereinafter referred to as the "Parties".

Whereas:

- A. Section 10 of the CAISO Tariff requires the CAISO to enter into a meter service agreement with each Scheduling Coordinator responsible for providing Settlement Quality Meter Data for Scheduling Coordinator Metered Entities that it represents.
- **B.** Section 10 of the CAISO Tariff requires Scheduling Coordinators to ensure that the Scheduling Coordinator Metered Entities that they represent adhere to the requirements and standards for Metering Facilities set forth in Section 10.3.
- C. The Parties are entering into this Agreement in order to establish the terms and conditions upon which the CAISO and the Scheduling Coordinator shall discharge their respective duties and responsibilities pursuant to this Agreement and the CAISO Tariff.
- D. All obligations and responsibilities included in this Agreement may be set forth in further detail in the CAISO Tariff.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

ARTICLE I

DEFINITIONS AND INTERPRETATION

- 1.1 Master Definitions Supplement. All terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.
- 1.2 Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:
 - if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO (a) Tariff will prevail to the extent of the inconsistency;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa:
 - (d) "includes" or "including" shall mean "including without limitation";
 - references to a section, article or schedule shall mean a section, article or a schedule of (e) this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made:
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
 - (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
 - any reference to a day, week, month or year is to a calendar day, week, month or year; (j)
 - the captions and headings in this Agreement are inserted solely to facilitate reference and (k) shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement; and
 - (I) references to the CAISO Tariff and other CAISO Documents shall be interpreted in accordance with any exceptions or exemptions to such as may have been granted by the CAISO.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 21, 2007 Effective: March 31, 2008

ARTICLE II

TERM AND TERMINATION

2.1 Effective Date. This Agreement shall be effective as of the later of the date of execution of this Agreement, or the date it is accepted and made effective by FERC, if such FERC filing is required, and shall remain in full force and effect until terminated by operation of law or pursuant to Section 2.2 of this Agreement.

2.2 Termination

- 2.2.1 **Termination by CAISO.** Subject to Section 4.2 the CAISO may terminate this Agreement by giving written notice of termination in the event that the Scheduling Coordinator commits any default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given it written notice of the default, unless excused by reason of Uncontrollable Force in accordance with Section 14.1 of the CAISO Tariff. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.
- 2.2.2 Termination by SC. In the event that the Scheduling Coordinator wishes to terminate this Agreement, the Scheduling Coordinator shall give the CAISO not less than ninety (90) days written notice. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within thirty (30) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the Scheduling Coordinator's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

ARTICLE III

GENERAL TERMS AND CONDITIONS

- 3.1 Agreement Subject to CAISO Tariff. This Agreement shall be subject to the provisions of the CAISO Tariff which shall be deemed to be incorporated herein, as the same may be changed or superseded from time to time. The Parties agree that they will comply with the provisions of Section 10 and all other applicable provisions of the CAISO Tariff.
- 3.2 Requirements and Standards for Metering Facilities. The Scheduling Coordinator shall ensure that the Scheduling Coordinator Metered Entities it represents shall adhere to the requirements and standards for Metering Facilities of its Local Regulatory Authority. If that Scheduling Coordinator Metered Entity's Local Regulatory Authority has not set any requirements or standards in relation to any of its Metering Facilities, the Scheduling Coordinator representing that Scheduling Coordinator Metered Entity must comply with the requirements and standards for those Metering Facilities as set forth in this Agreement and the CAISO Tariff.
- 3.3 Obligations and Rights of the Scheduling Coordinator.
- 3.3.1 Meter Information. If the CAISO so requests, the Scheduling Coordinator shall provide in the format prescribed by Schedule 1 to this Agreement the required information with respect to the meters for all Scheduling Coordinator Metered Entities it represents including the reference to specific distribution loss factors or methodology it proposes to use as determined by the relevant UDC and approved by the relevant Local Regulatory Authority. The Scheduling Coordinator must immediately notify the CAISO of any changes to the information provided to the CAISO in accordance with this Section 3.3.1 and provide the CAISO with any information in relation to such change as reasonably requested by the CAISO. Any amendments or additions to Schedule 1 shall not constitute an amendment to this Agreement.
- 3.3.2 Assistance and Cooperation of Scheduling Coordinator. The Scheduling Coordinator shall ensure that the CAISO shall, upon reasonable notice, have access to the entire Metering Facilities of the Scheduling Coordinator Metered Entities that it represents from the meter data server to the Metering Facilities in order to inspect, test or otherwise audit those Metering Facilities.
- 3.3.3 Profiled and Cumulative Meter Data. The Scheduling Coordinator shall provide the CAISO with any applicable Approved Load Profile for each Scheduling Coordinator Metered Entity that it represents that is load profiled in accordance with the CAISO Tariff. The Scheduling Coordinator shall provide a copy of the Approved Load Profile applicable to each Scheduling Coordinator Metered Entity (if any) that it represents, which shall be set forth in Schedule 2 to this Agreement. The Scheduling Coordinator must immediately notify the CAISO of any changes to the Approved Load Profiles referred to in Schedule 2 to this Agreement and provide the CAISO with a copy of the new or amended Approved Load Profile. Such change to Schedule 2 shall not constitute an amendment to this Agreement.
- 3.3.4 Security and Validation Procedures. The Scheduling Coordinator shall apply to the Meter Data of the Scheduling Coordinator Metered Entities that it represents the security and validation procedures prescribed by the relevant Local Regulatory Authority. If the relevant Local Regulatory Authority has not prescribed any such procedures, the Scheduling Coordinator shall apply the procedures set forth in the CAISO Tariff. Meter Data submitted by a Scheduling Coordinator for Scheduling Coordinator Metered Entities shall conform to these standards unless the CAISO has, at its discretion, exempted the Scheduling Coordinator from these standards.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

- 3.4 Obligations and Rights of the CAISO.
- 3.4.1 Exemptions Granted by CAISO. Any exemptions provided for under the CAISO Tariff that are granted by the CAISO shall be set forth in Schedule 3 to this Agreement. Any amendment or addition to Schedule 3 shall not constitute an amendment to this Agreement.
- 3.4.2 CAISO as Third-Party Beneficiary. The CAISO shall be a third-party beneficiary to the agreements between the Scheduling Coordinator and Scheduling Coordinator Metered Entities that the Scheduling Coordinator represents. Such agreements shall grant the CAISO access to any relevant information, records and facilities of the Scheduling Coordinator Metered Entity as needed for the CAISO to fulfill its obligations under this Agreement and the CAISO Tariff.

ARTICLE IV

PENALTIES & SANCTIONS

- 4.1 Penalties. If the Scheduling Coordinator provides inaccurate or incorrect Settlement Quality Meter Data or fraudulent Meter Data to the CAISO, the CAISO shall be entitled to impose penalties and sanctions, including but not limited to suspension of trading rights following 14 days written notice to the Scheduling Coordinator. Fraudulent Meter Data means any data provided to the CAISO by the Scheduling Coordinator that the Scheduling Coordinator knows to be false, incorrect or incomplete at the time it provided it to the CAISO. All penalties and sanctions shall be set forth in Schedule 4 Part A or in the CAISO Tariff. No penalties or sanctions, including the suspension of trading rights, may be imposed under this Agreement unless a Schedule or CAISO Tariff provision providing for such penalties or sanctions has first been filed with and made effective by FERC. Nothing in the Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the Scheduling Coordinator to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the Scheduling Coordinator. The CAISO will provide notice to all Scheduling Coordinators of any filing of proposed penalties or sanctions with the FERC. The CAISO shall notify the Scheduling Coordinator of those approved penalties within 14 days of their approval by the FERC.
- 4.2 Corrective Measures. If the Scheduling Coordinator or any Scheduling Coordinator Metered Entity that it represents fails to meet or maintain the standards for Metering Facilities or comply with the audit or test procedures as set forth in the CAISO Tariff, the CAISO shall be permitted to take corrective measures. Details of the corrective measures and rights the CAISO may exercise upon any failure by any entity to meet those standards for Metering Facilities or to comply with the audit or test procedures shall be set forth in Schedule 4 Part B or in the CAISO Tariff.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

ARTICLE V

ACCESS TO METER DATA

5.1 Third Parties. Third parties that are authorized by the Scheduling Coordinator to access the Meter Data of a Scheduling Coordinator Metered Entity held by the CAISO and that are entitled to such Meter Data shall be identified in Schedule 5 to this Agreement. The Scheduling Coordinator shall not provide a third party access to Meter Data of a Scheduling Coordinator Metered Entity unless the Scheduling Coordinator has permission from that Scheduling Coordinator Metered Entity to provide that access. The relevant UDCs and TOs shall be included in Schedule 5 provided that the Scheduling Coordinator Metered Entity has granted those UDCs and TOs access to its Meter Data. Any amendment or addition to Schedule 5 shall not constitute an amendment to this Agreement. The Scheduling Coordinator shall, on request by the Scheduling Coordinator Metered Entity, access the Meter Data held by the CAISO relating to that Scheduling Coordinator Metered Entity and provide that Meter Data to the Scheduling Coordinator Metered Entity in a timely manner.

ARTICLE VI

COSTS

6.1 Certification, Inspection and Auditing of Meters. The Scheduling Coordinator shall be responsible for all reasonable costs incurred by the CAISO or a CAISO Authorized Inspector in connection with them carrying out the certification, inspection, testing or auditing of the meters identified in Schedule 1 from which the Scheduling Coordinator provides Meter Data to the CAISO. The CAISO or CAISO Authorized Inspector will furnish the Scheduling Coordinator, upon request, an itemized bill for such costs.

ARTICLE VII

DISPUTE RESOLUTION

7.1 **Dispute Resolution.** The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that all reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator Metered Entity and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE VIII

REPRESENTATIONS AND WARRANTIES

8.1 Representations and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

- **8.2 Necessary Authority.** The Scheduling Coordinator represents and warrants that all of the entities which it identifies on Schedule 1 as Scheduling Coordinator Metered Entities that it represents have granted it all necessary authority to enable it to carry out its obligations under this Agreement and the CAISO Tariff, and, subject to the execution and delivery by the CAISO, this Agreement will be enforceable against the Scheduling Coordinator in accordance with its terms.
- **8.3 Meter Data Access.** The Scheduling Coordinator represents and warrants that all third parties referred to in Schedule 5 to this Agreement have been authorized by the relevant Scheduling Coordinator Metered Entity as having access to its Settlement Quality Meter Data.

ARTICLE IX

LIABILITY AND INDEMNIFICATION

9.1 Liability and Indemnification. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the Scheduling Coordinator and references in the CAISO Tariff shall be read as references to this Agreement.

ARTICLE X

UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as references to the Scheduling Coordinator and all references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE XI

MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with the Scheduling Coordinator's Scheduling Coordinator Agreement and in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the Scheduling Coordinator and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 6. A Party must update the information in Schedule 6 as information changes. Such changes shall not constitute an amendment to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 21, 2007 Effective: March 31, 2008

- **11.3 Waivers.** Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay short of the statutory period of limitations in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 11.4 Governing Law and Forum. This Agreement shall be deemed to be a contract made under and for all purposes shall be governed by and construed in accordance with the laws of the State of California, except its conflict of law provisions. The Scheduling Coordinator irrevocably consents that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- **11.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 11.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.
- 11.8 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that are subject to FERC approval shall not take effect until FERC has accepted such amendments for filing and has made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the Scheduling Coordinator shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **11.9 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

Ву:	
Name:	
Title:	
Date:	
•	
Full leg	gal name of SC
Ву:	·
Name:	
Title:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 21, 2007 Effective: March 31, 2008

SCHEDULE 1

METER INFORMATION [Section 3.3.1]

Meter Number Name of the Facility Contact details for Scheduling Coordinator Metered Entity Representative

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

SCHEDULE 2

APPROVED LOAD PROFILE [Section 3.3.3]

Attach details of each Approved Load Profile used by the Scheduling Coordinator Metered Entities represented by the Scheduling Coordinator, the names of the Scheduling Coordinator Metered Entities that use each of those Approved Load Profiles and the name of the Local Regulatory Authority that approved each of those Approved Load Profiles.

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SCHEDULE 3

EXEMPTIONS FROM METERING STANDARDS AND OTHER REQUIREMENTS [Section 3.4.1]

<u>Exemption</u>
Attach variation with an explanation.
Name of the relevant Local Regulatory Authority which sets security and validation standards for the
Scheduling Coordinator Metered Entity.
Other Exemptions

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

SCHEDULE 4

PART A

CAISO IMPOSED PENALTIES AND SANCTIONS [Section 4.1]

TO BE INSERTED UPON FERC APPROVAL

PART B

CORRECTIVE MEASURES
[Section 4.2]

TO BE DEVELOPED

SCHEDULE 5

ACCESS TO METER DATA [Section 5.1]

List the third parties authorized by each Scheduling Coordinator Metered Entity represented by the Scheduling Coordinator to access that Scheduling Coordinator Metered Entity's Settlement Quality Meter Data.

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SCHEDULE 6

NOTICE [Section 11.2]

Name of Primary	
Representative:	
Γitle:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
-ax:	
Name of Alternative	
Representative:	
· Γitle:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
-ax·	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1073

CAISO:

Name of Primary	
Representative:	
Γitle:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
-ax:	
Name of Alternative	
Representative:	
Γitle:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
-ax·	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

CAISO TARIFF APPENDIX B.8 Utility Distribution Company Operating Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[UTILITY DISTRIBUTION COMPANY]

UTILITY DISTRIBUTION COMPANY OPERATING AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

UTILITY DISTRIBUTION COMPANY

OPERATING AGREEMENT

THIS betwe	OPERATING AGREEMENT is dated this day of, and is entered into, by and een:
(1)	[Full legal name of UDC] having its registered and principal place of business located at [Address] (the "UDC");
	and
(2)	California Independent System Operator Corporation, a California non-profit public benefit corporation having its principal place of business located in such place in the State of California as

the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road,

The UDC and the CAISO are hereinafter referred to as the "Parties".

Folsom, California 95630 (the "CAISO").

Whereas:

- A. The purpose of this Operating Agreement is to establish the rights and obligations of the UDC and the CAISO with respect to the UDC's Interconnection with the CAISO Controlled Grid and the UDC's cooperation and coordination with the CAISO to aid the reliability and the Operational Control of the CAISO Controlled Grid and the UDC's Distribution System.
- B. The UDC owns and operates a Distribution System within the CAISO Balancing Authority Area subject to the authority of a Local Regulatory Authority.
- C. The UDC wishes to transmit Energy and/or supply Ancillary Services to or from the CAISO Controlled Grid under the terms and conditions set forth in the CAISO Tariff. The UDC also wishes to support and be part of the coordinated response to System Emergencies and to System Reliability concerns relating to the CAISO Controlled Grid.
- D. The CAISO has certain statutory obligations under California law to maintain the reliability of the CAISO Controlled Grid.
- E. This Operating Agreement obligates the UDC and the CAISO to comply with the relevant sections of the CAISO Tariff, the CAISO Operating Procedures and the CAISO Specifications.
- F. The UDC and the Participating TO with which it is interconnected intend to coordinate the planning and implementation of any expansions or modifications of the UDC's or Participating TO's systems that will affect their transmission interconnection, the CAISO Controlled Grid or the transmission services to be required by the UDC.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

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Issued on: December 21, 2007

Effective: March 31, 2008

ARTICLE I

DEFINITIONS AND INTERPRETATION

- **1.1 Master Definitions Supplement.** Unless defined in Section 1.2 of this Operating Agreement, all terms and expressions used in this Operating Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.
- **1.2 Special Definitions for this Operating Agreement**. In this Operating Agreement, the following words and expressions shall have the meanings set opposite them:
 - "CAISO Specifications" means those standards pertaining to the areas of operation listed in Article IV of this Operating Agreement, approved by the CAISO to establish detailed technical performance and reliability parameters at the CAISO Controlled Grid and UDC Interconnection, associated with the CAISO Tariff, as those standards may be amended from time to time.
 - "CAISO Operating Procedures" means those procedures pertaining to the areas of operation listed in Article IV of this Operating Agreement, created by the CAISO to establish detailed operating practices at the CAISO Controlled Grid and UDC Interconnection, associated with general provisions required in the CAISO Tariff, as those standards may be amended from time to time.
- **1.3** Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Operating Agreement:
 - (a) if there is any inconsistency between this Operating Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - (e) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Operating Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference in this Operating Agreement to a given agreement, instrument or the CAISO Tariff shall be a reference to that agreement, instrument or the CAISO Tariff as modified, amended, supplemented or restated through the date as of which such reference is made;
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;

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- (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
- unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
- (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
- (k) the captions and headings in this Operating Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Operating Agreement.

ARTICLE II

TERM AND TERMINATION

- **2.1 Effective Date.** This Operating Agreement shall be effective as of the later of the date it is executed by the Parties or the date accepted for filing and made effective by the FERC, if such FERC filing is required, and shall remain in full force and effect until the earlier of the termination date, the termination of the TCA or such other date as the Parties shall mutually agree. With respect to any such termination, the CAISO must file a timely notice of termination with FERC, if such FERC filing is required, and this Operating Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such FERC filing is required.
- 2.2 Termination Date. Either Party (the terminating Party) may terminate this Operating Agreement by giving written notice in the event that the other Party (the defaulting Party) commits any default under this Operating Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within 30 days after the terminating Party has given the defaulting Party written notice of the default, unless excused by reason of Uncontrollable Forces under Article X of this Operating Agreement. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Operating Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Operating Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.
- 2.3 Termination Pursuant to the TCA. If the UDC is a party to the Transmission Control Agreement ("TCA"), this Operating Agreement shall terminate upon the effective date of the UDC's withdrawal from the TCA in accordance with Section 3.3 of the TCA, provided, however, that first the CAISO shall have filed a timely notice of termination with FERC, if such FERC filing is required, and FERC shall have accepted such notice of termination, if such FERC filing is required, or the CAISO must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The

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filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001.

ARTICLE III

GENERAL TERMS AND CONDITIONS

- 3.1.1 Facilities Under CAISO Operational Control. Parties shall identify on Schedule 1 those facilities of the UDC that the Parties mutually agree will be placed under the CAISO's Operational Control pursuant to the CAISO Tariff. In the event that a Party invokes the dispute resolution provision identified in Section 7.1 of this Operating Agreement, such dispute shall be resolved based upon whether the CAISO's control over such disputed facilities is essential to meeting the Applicable Reliability Criteria, as defined in the CAISO Tariff. With respect to each facility identified in Schedule 1, the Parties shall negotiate the extent of the CAISO's Operational Control in order to meet said standard.
- 3.1.2 Facilities Financed by Local Furnishing Bonds or Other Tax-Exempt Bonds. This Section 3.1.2 applies only to facilities which are under the Operational Control of the CAISO and are owned by a UDC with Local Furnishing Bonds or other tax-exempt bonds. Nothing in this Operating Agreement shall compel (and the CAISO is not authorized to request) any UDC with Local Furnishing Bonds, or other tax-exempt bonds, to violate restrictions applicable to facilities which are part of a system that was financed in whole or part with Local Furnishing Bonds or other tax-exempt bonds. The UDC shall cooperate with and provide all necessary assistance to the CAISO in developing specific schedules to be included in executed Operating Agreements with such UDC to meet the intent of Section 3.1.1 of this Operating Agreement.
- **3.2** Agreement Subject to CAISO Tariff. This Operating Agreement shall be subject to the provisions of the CAISO Tariff which shall be deemed to be incorporated by reference herein, as the same may be changed or superseded from time to time pursuant to Sections 22.10 and 22.4.3 of the CAISO Tariff. The Parties agree that they will comply with Section 4.4, and any other applicable provisions, of the CAISO Tariff.
- **3.3** Operation of CAISO Controlled Grid. The CAISO shall operate the CAISO Controlled Grid in accordance with the CAISO Tariff and the Transmission Control Agreement to which it is a party.
- 3.4.1 Compliance with CAISO Specifications and CAISO Operating Procedures. The UDC will abide by and will perform all of the obligations under the CAISO Specifications and the CAISO Operating Procedures placed on UDCs in respect of all matters set forth therein as the same may be changed or superseded from time to time pursuant to the procedures set forth in Sections 22.10 and 22.4.3 of the CAISO Tariff. In the event of any conflict or dispute over interpretation, the CAISO Tariff shall, at all times, take precedence over the CAISO Specifications and CAISO Operating Procedures. The CAISO shall not implement any reliability requirements, operating

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requirements or performance standards that would impose increased costs on the UDC without giving due consideration to whether the benefits of such requirements or standards are sufficient to justify such increased costs. In any proceeding concerning the cost recovery by the UDC of capital and operation and maintenance costs incurred to comply with CAISO Specifications and Operating Procedures, the CAISO shall, at the request of the UDC, provide specific information regarding the nature of, and need for, the CAISO-imposed requirements or standards to enable the UDC to use this information in support of cost recovery through rates and tariffs.

- **3.4.2** Review of Specifications and Operating Procedures. The CAISO shall periodically review with the UDC the CAISO Specifications and Operating Procedures and, through the process specified in the CAISO Tariff, shall modify the specifications and/or Operating Procedures as necessary.
- **3.4.3** Periods When Compliance is Required. While awaiting dispute resolution or regulatory review, the UDC shall not be required to comply with changes to the CAISO Specifications and/or Operating Procedures, except where compliance is necessary in order to prevent or remedy an imminent System Emergency.
- 3.5 Scheduling Coordinator Certification. The UDC shall ensure that any Scheduling Coordinator through which it submits Bids for Energy and Ancillary Services to or from the CAISO Controlled Grid is appropriately certified in accordance with Section 4.5.1 of the CAISO Tariff in accordance with the list of Scheduling Coordinators established by the CAISO on the CAISO Website.
- 3.6 Single Point of Contact. The CAISO and the UDC shall each provide a single point of contact on a 24-hour, 7-day basis for the exchange of operational procedures and information. In the case of a UDC that is also a Participating TO, there may be only one single point of contact required and, in the reasonable discretion of the CAISO, duplicative reporting requirements and functions may be waived. Details of requirements relating to and the identity of the initial points of contact are set forth in Schedule 2.
- **3.7 Delegated Operational Responsibilities.** The UDC undertakes to perform all operational responsibilities delegated to the UDC by the CAISO in accordance with Section 4.4.1.2 of the CAISO Tariff and described in Schedule 3.

ARTICLE IV

OPERATIONAL COORDINATION

The Parties will perform the operational coordination obligations and responsibilities assigned to them under the CAISO Tariff, the CAISO Operating Procedures, and the CAISO Specifications. The obligations and responsibilities include:

4.1 Maintenance Coordination

4.1.1 Maintenance Coordination for Facilities under CAISO Control. The UDC shall schedule with the CAISO on an annual basis any maintenance Outages of the equipment included in Schedule 1 pursuant to Schedule 4 in compliance with the CAISO Tariff and shall coordinate its Outage requirements with the Participating TO with which it is interconnected.

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- **4.1.2 Maintenance Coordination for Other Facilities.** With respect to other facilities which may affect the reliability of the UDC Interconnection, the UDC shall coordinate its Outage requirements with the Participating TO with which it is interconnected.
- **System Emergencies.** The responsibilities of the Parties in relation to System Emergencies are stated in the CAISO Tariff and in Schedule 5. The CAISO shall adopt fair and non-discriminatory procedures among the UDCs to ensure that no UDC bears a disproportionate share of the CAISO's Load Shedding program.
- **4.2.1 Underfrequency Load Shedding (UFLS).** The responsibilities of the Parties in relation to UFLS are stated in Section 7.7.8 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 6.
- **4.2.2 Other Automatic Load Shedding.** The responsibilities of the Parties in relation to automatic Load Shedding as a function of voltage and other parameters are stated in the CAISO Operating Procedures, the CAISO Specifications and in Schedule 7.
- **4.2.3 Manual Load Shedding.** The responsibilities of the Parties to direct and to accept direction for manual disconnection of Load, under EEP, Load curtailment programs or other emergency plans, are stated in Section 7, including Section 7.7.11.3, of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 8.
- **4.3 Electrical Emergency Plan (EEP).** The responsibilities of the Parties in relation to the EEP are stated in Section 7.7.5.1 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 9.
- **4.4 Load Restoration.** The responsibilities of the Parties for restoring Load following a system disturbance are stated in Section 7.7.11.3 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications and in Schedule 10.
- 4.5 Records, Information and Reports. The Parties are required to maintain such records, to share information, and to make such reports as are stated in Section 4.4.1, 4.4.3, and 4.4.5 of the CAISO Tariff, the CAISO Operating Procedures, the CAISO Specifications, and in Schedule 11. Additionally, the Parties shall jointly perform a review following a major Outage as provided in Section 7.7.13.1 of the CAISO Tariff.
- **4.6 Interconnection Operation Standards.** The CAISO and UDC shall maintain stable established operating parameters and control power and reactive flow within standards stated in the CAISO Specifications and in Schedule 12.
- 4.7 Critical Protective Systems. The UDC shall (in accordance with Section 11.2 of this Operating Agreement) notify the CAISO as soon as is reasonably practicable of any condition that it becomes aware of that may compromise the CAISO Controlled Grid Critical Protective Systems in accordance with Section 4.4.2 of the CAISO Tariff and Schedule 13.
- **4.8 UDC Distribution Systems.** The CAISO shall (in accordance with Section 11.2 of this Operating Agreement) notify the UDC as soon as is reasonably practicable of any condition which the CAISO becomes aware that may compromise the operation and reliability of the UDC Distribution System.

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ARTICLE V

ACCESS TO FACILITIES

- Access Rights. Pursuant to Section 4.4.6 of the CAISO Tariff and Schedule 14 of this Operating Agreement, the CAISO and the UDC shall each have the right to install or to have installed equipment or other facilities, including metering equipment, on the electric utility property of the other necessary for the implementation of this Operating Agreement. The CAISO's installation of equipment on the property of the UDC shall comply with Local Regulatory Authority regulations, except where compliance with Local Regulatory Authority regulations would cause the CAISO to violate the CAISO Tariff, and with all relevant safety standards. In such case, the UDC and CAISO will work together to resolve the conflict between the Local Regulatory Authority regulations and the CAISO Tariff.
- **Meter Testing.** The UDC shall, at the request of the CAISO and upon reasonable notice, provide access to its facilities necessary to permit the CAISO or a CAISO-approved meter inspector to perform such testing as necessary in accordance with Section 4.4.6 of the CAISO Tariff and the procedures set forth in Schedule 14.
- **5.3 Emergency Access Rights.** Section 4.4.6.3 of the CAISO Tariff shall govern the CAISO's right to access the UDC's equipment or other facilities during a System Emergency or where access is needed in connection with an audit function. In a System Emergency, the UDC shall have a right of access to CAISO equipment on UDC property and UDC equipment on CAISO property without notice.

ARTICLE VI

COSTS

- **6.1 UDC Operating and Maintenance Costs.** The UDC shall be responsible for all costs incurred in connection with procuring, installing, operating and maintaining its facilities identified in Schedule 1 for the purpose of meeting its obligations under this Operating Agreement.
- **6.2 CAISO Operating and Maintenance Costs.** The CAISO shall be responsible for the procurement, installation, operation and maintenance costs of CAISO equipment set out in Article V of this Operating Agreement installed on UDC property.

ARTICLE VII

DISPUTE RESOLUTION

7.1 Alternative Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Operating Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that all reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

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Issued on: December 21, 2007 Effective: March 31, 2008

ARTICLE VIII

REPRESENTATIONS AND WARRANTIES

- 8.1 Representations and Warranties. Each Party represents and warrants that its execution, delivery and performance of this Operating Agreement has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- 8.2 Necessary Approvals. Each Party represents that all necessary approvals, permits, licenses, easements, right of way or access to install, own and operate its facilities subject to this Operating Agreement have been obtained prior to the effective date of this Operating Agreement.

ARTICLE IX

LIABILITY

9.1 Extent of Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Operating Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

ARTICLE X

UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Operating Agreement, except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

ARTICLE XI

MISCELLANEOUS

11.1 Assignments. Either Party may assign its obligations under this Operating Agreement, with the other Party's prior written consent, in accordance with Section 22.2 of the CAISO Tariff, which is incorporated by reference into this Operating Agreement. Such consent shall not be unreasonably withheld.

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- 11.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Operating Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, which is incorporated by reference, except that all reference in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the UDC and references to the CAISO Tariff shall be read as references to this Operating Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 2. A Party must update the information relating to its address as that information changes in accordance with Section 22.4 of the CAISO Tariff. Such changes will not constitute an amendment to this Operating Agreement.
- 11.3 Waivers. Any waiver at any time by either Party of its rights with respect to any default under this Operating Agreement, or with respect to any other matter arising in connection with this Operating Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or matter arising in connection with this Operating Agreement. Any delay short of the statutory period of limitations, in asserting or enforcing any right under this Operating Agreement, shall not constitute or be deemed a waiver of such right.
- 11.4 Governing Law and Forum. This Operating Agreement shall be deemed to be a contract made under and for all purposes shall be governed by and construed in accordance with the laws of the State of California except in its conflict of laws provisions. The Parties irrevocably consent that any legal action or proceeding arising under or in relation to this Operating Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.

11.5 Consistency with Federal Laws and Regulations.

- (a) Nothing in this Operating Agreement shall compel any person or federal entity to: (1) violate federal statutes or regulations; or (2) in the case of a federal agency, to exceed its statutory authority, as defined by any applicable federal statutes, regulations, or orders lawfully promulgated thereunder. If any provision of this Operating Agreement is inconsistent with any obligation imposed on any person or federal entity by federal law or regulation to that extent, it shall be inapplicable to that person or federal entity. No person or federal entity shall incur any liability by failing to comply with this Operating Agreement that is inapplicable to it by reason of being inconsistent with any federal statutes, regulations, or orders lawfully promulgated thereunder; provided, however, that such person or federal entity shall use its best efforts to comply with the CAISO Tariff to the extent that applicable federal laws, regulations, and orders lawfully promulgated thereunder permit it to do so.
- (b) If any provision of this Operating Agreement requiring any person or federal entity to give an indemnity or impose a sanction on any person is unenforceable against a federal entity, the CAISO shall submit to the Secretary of Energy or other appropriate Departmental Secretary a report of any circumstances that would, but for this provision, have rendered a federal entity liable to indemnify any person or incur a sanction and may request the Secretary of Energy or other appropriate Departmental Secretary to take such steps as are necessary to give effect to any provisions of this Operating Agreement that are not enforceable against the federal entity.

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- **11.6 Integration.** This Operating Agreement constitutes the full agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 11.7 Severability. If any term, covenant, or condition of this Operating Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Operating Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Operating Agreement.
- 11.8 Penalties. Any penalties to be levied under this Operating Agreement shall be established in accordance with the CAISO Tariff after consultation between the UDC and the CAISO, and approval by the FERC, and shall be set out in Schedule 15 or a provision of the CAISO Tariff. No penalties or sanctions may be imposed under this Operating Agreement unless a Schedule or CAISO Tariff provision providing for such penalties or sanctions has first been filed with and made effective by FERC. Nothing in this Operating Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the UDC to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the UDC.

11.9 [NOT USED]

- 11.10 Amendments. This Operating Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Operating Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the UDC shall have the right to make a unilateral filing with FERC to modify this Operating Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Operating Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **11.11 Counterparts.** This Operating Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Operating Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

IN WITNESS WHEREOF, the Parties hereto have caused this Operating Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

SCHEDULE 1

FACILITIES UNDER CAISO CONTROL

The UDC will supply a list of UDC facilities that are placed under the Operational Control of the CAISO in Schedule 1.

There are no UDC facilities to be listed here at present.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

SCHEDULE 2

OPERATIONAL CONTACT

CAISO:
Transmission Dispatcher
(Folsom):
Transmission Dispatcher
(Alhambra):
Shift Supervisor:
Director of Grid Operations:
City/State/Zip Code
Other CAISO Dispatch Operations Phones:
Generation Dispatcher
(Folsom)
Generation Dispatcher
(Alhambra)
WECC Reliability Coordinator

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1089

UDC:			
Name of Primary			
Representative:			
Name of Alternative			
Representative:			
Title:			
Address:			
City/State/Zip Code			
Email address:			
Phone:			
Fax:			

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

CONTACTS FOR NOTICES

UDC

Name of Primary Representative: Title: Address: City/State/Zip Code: Email Address: Phone: Fax No:	
Name of Alternative Representative: Title: Address: City/State/Zip Code: Email Address: Phone: Fax No:	
CAISO	
Name of Primary Representative: Title: Address: City/State/Zip Code: Email Address: Phone: Fax No:	
Name of Alternative Representative: Title: Address: City/State/Zip Code: Email Address: Phone: Fax No:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

SCHEDULE 3

DELEGATED OPERATIONAL RESPONSIBILITIES

Currently the CAISO has not delegated any operational responsibilities to the UDC in accordance with Section 4.4.1 of the CAISO Tariff. If such a delegation occurs, they will be identified in this Schedule 3.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 4

MAINTENANCE COORDINATION

By October 1st of each year, the UDC will exchange with the CAISO a provisional planned Outage program for all lines and equipment in Schedule 1. That document will be updated quarterly or as changes occur to the proposed schedule.

The CAISO will approve all Outages on equipment and lines transferred to CAISO Operational Control.

Applications for scheduled work will be submitted to the CAISO by _______'s Grid Operations group via means to be agreed to by both Parties. The UDC documents will record the details for all work and become

the data base for reporting and recording Outage information.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 5

SYSTEM EMERGENCIES

The CAISO will notify the UDC's operational contact (Operations Shift Supervisor - Grid Control), as identified in <u>Schedule 2</u>, of the emergency, including information regarding the cause, nature, extent, and potential duration of the emergency. The Operations Shift Supervisor will add any relevant data and will notify Distribution Operations. Distribution Operations will make the appropriate notifications within the UDC organization. The Operations Shift Supervisor and Distribution Control Shift Supervisor will then take such actions as are appropriate for the emergency.

The UDC will make requests for information from the CAISO regarding emergencies through the Operations Shift Supervisor, or the UDC Communication Coordinator may coordinate public information with the CAISO Communication Coordinator.

The UDC is required to estimate service restoration by geographic areas, and will use its call center and the media to communicate with customers during service interruptions. The UDC is also required to communicate the same information to appropriate state and local governmental entities. For transmission system caused outages the Operations Shift Supervisor will notify Distribution Operations Control Center of any information related to the outage such as cause, nature, extent, potential duration and customers affected.

Distribution Control and Grid Control Center logs, Electric Switching Orders and Energy Management System temporal data base will be used in preparation of outage reviews. These documents are defined as the chronological record of the operation of the activities which occur with the portion of the electrical system assigned to that control center. The log shall contain all pertinent information, including orders received and transmitted, relay operations, messages, clearances, accidents, trouble reports, daily switching program, etc.

The UDC will retain records in accordance with its record retention policy or practice, provided the records associated with this Operating Agreement are retained for a minimum of six years.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

SCHEDULE 6

UNDERFREQUENCY LOAD SHEDDING

The objective of the Underfrequency Load Shedding (UFLS) program is to provide security and protection to the interconnected bulk power network by arresting frequency decay during periods of insufficient resources.

This plan establishes Underfrequency Load Shedding objectives consistent with the Load Shedding policies of the Western Electricity Coordinating Council, the North American Electric Reliability Corporation and the UDC. The UDC's Load Shedding program will be in accordance with the WECC Off-nominal Frequency Report requirements.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 7

OTHER AUTOMATIC LOAD SHEDDING

In addition to underfrequency relay load reduction, any undervoltage relay protection that is utilized in the UDC will be identified in the Attachment to this Schedule 7.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1096

SCHEDULE 8

MANUAL LOAD SHEDDING

[Note: Schedule 8 will detail the criteria governing the implementation of manual Load Shedding and/or interruptible Loads, and will describe the UDC's means of effecting Load Shedding and the estimated associated MW values of various UDC Loads to be shed. For Load curtailment programs Schedule 8 will also contain the UDC's capabilities until October 1 and thereafter annually.]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 8A

ROTATING LOAD CURTAILMENT PROCEDURES

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1098

SCHEDULE 8B

INTERRUPTIBLE LOAD

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March 31, 2008

SCHEDULE 9

ELECTRICAL EMERGENCY PLAN

The CAISO Specifications will outline the basic criteria for the development, coordination, and implementation of the UDC EEP and the requirements for coordination with the CAISO EEP. Schedule 9 will include the UDC EEP as coordinated with the CAISO EEP.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 10

LOAD RESTORATION

The UDC will follow the procedures set forth below in this Schedule 10 in promoting orderly, coordinated restoration of electric systems after a major system disturbance has occurred which resulted in Load Shedding by frequency relays in California.

- 1. Immediately after Load Shedding by frequency relay has occurred in the UDC, the UDC will remain in contact with its respective Participating Transmission Owner (PTO) Area Control Center (ACC) until normal frequency has been restored throughout the CAISO Balancing Authority Area or the CAISO Shift Supervisor has concluded that such full-time communications can be terminated. Emergency communications over the California ACC Hot-line will be under the direction of the CAISO Shift Supervisor and the senior dispatcher present at the affected PTO ACC(s).
- Manual Load restoration will not normally be initiated until the California ACC Hot Line is 2. attended. No Load is to be manually restored unless directed by the CAISO after the frequency has recovered and there is indication that the frequency can be maintained. The UDC will await direction from its respective PTO ACC who will be in contact with the CAISO Shift Supervisor. The CAISO Shift Supervisor will determine whether adequate generation resources are available on line to support the Load to be restored.
- Any UDC automatic Load restoration will be consistent with the WECC Coordinated Off-Nominal Frequency Load Shedding and Restoration Plan.
- If the CAISO cannot meet the WECC and NERC Balancing Authority Area Disturbance Control Standard or the Control Performance Standard post disturbance, no manual Load restoration will be permitted. If the frequency is such that automatic Load restoration occurs under these conditions, the UDC(s) which has restored Load automatically will manually shed an equivalent amount of Load to offset the Load which was automatically restored.
- Restoration of ties and off-site power supply to nuclear generating facilities should be given top priority. Manual Load restoration will be deferred during periods of tie restoration. The UDC should be equipped and prepared to drop Load manually when necessary to allow frequency recovery sufficient to reestablish CAISO intra-area ties and Interties between the CAISO Balancing Authority Area and outside systems. Where manual Load Shedding is required, the CAISO shall make reasonable efforts to allocate the Load Shedding requirement equitably among the UDCs where Load Shedding will be beneficial.
- The UDC will use its existing plans and priorities to restore Load within the parameters given by the CAISO, giving the appropriate priority to essential services such as military, public safety agencies, water treatment plants, sewage treatment plants, etc.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 11

RECORDS, INFORMATION, REPORTS

The CAISO and UDC will jointly develop any necessary forms and procedures for collection, study and transmittal of system data, information, reports, and forecasts.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 12

INTERCONNECTION OPERATION STANDARDS

The CAISO and UDC shall jointly maintain stable operating parameters and control power and reactive flow in accordance with the CAISO Tariff and the following Interconnection Operation Standards.

UDC Responsibilities

- 1.0 The UDC shall operate its facilities at each point of interconnection with the CAISO Controlled Grid in such manner as to avoid any material or adverse impact on the CAISO Controlled Grid. In accordance with this performance goal, the UDC shall:
- 1.1 Operate its facilities at each point of interconnection with the CAISO Controlled Grid within established operating parameters including normal ratings, emergency ratings, voltage limits, and balance of load between electrical phases.
- 1.2 Maintain primary and backup protective systems such that faults on UDC facilities will be cleared with minimal impact on the CAISO Controlled Grid.
- 1.3 Maintain Load power factor at each point of interconnection with the CAISO Controlled Grid as close as possible to unity power factor and pursuant to Section 8.2.3.3 of the CAISO Tariff.

CAISO Responsibilities

- 2.0 The CAISO shall operate the CAISO Controlled Grid at each point of interconnection with the UDC in such manner as to avoid any material or adverse impact on the UDC facilities. In accordance with this performance goal, the CAISO shall:
- 2.1 Participate with the UDC and TO in the development of joint power quality performance standards and jointly maintain compliance with such standards.
- 2.2 Observe UDC grid voltage limits specified in Attachment 1 including requirements for reduced voltage on CAISO Controlled Grid facilities which apply during heavy fog (or other unusual operating conditions) as needed to minimize the risk of insulator flashover.
- 2.3 Approve transmission owner maintenance requests in a timely manner, and shall not unreasonably withhold approval of TO requests for authorization to perform energized insulator washing work or to take planned Outages needed to replace or insul-grease insulators.
- 2.4 Support UDC investigation of power quality incidents, and provide related data to the UDC in a timely manner.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1103

- 2.5 Support installation of apparatus on the CAISO Controlled Grid to improve power quality, and take all reasonable measures to investigate and mitigate power quality concerns caused by actions or events in neighboring systems or Balancing Authority Areas.
- 2.6 Maintain Load power factor at each UDC Interconnection as close as possible to unity power factor and pursuant to Section 8.2.3.3 of the CAISO Tariff.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 13

CRITICAL PROTECTION SYSTEMS

Distribution protective relay schemes affecting the CAISO Controlled Grid are those associated with transformers that would trip transmission breakers and/or busses at UDC Interconnection point when activated. These would include any of the following:

- High Side Overcurrent Relays 1.
- 2. **Differential Overcurrent Relays**
- 3. Sudden Pressure Relays
- 4. Low Oil Relays
- 5. **Neutral Ground Overcurrent Relays**
- 6. On fuse protected transformers, it would be the high-side fuses.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 14

RIGHTS OF ACCESS TO FACILITIES

- Equipment Installation. In order to give effect to this Operating Agreement, a Party that requires to use particular equipment (the equipment owner) may require installation of such equipment on property owned by the other Party (the property owner), provided that the equipment is necessary to meet the equipment owner's service obligations and that the equipment shall not have a negative impact on the reliability of the service provided, nor prevent the property owner from performing its own obligations or exercising its rights under this Operating Agreement.
- Free Access. The property owner shall grant to the equipment owner free of charge reasonable installation rights and rights of access to accommodate equipment inspection, maintenance, repair, upgrading, or removal for the purposes of this Operating Agreement, subject to the property owner's reasonable safety, operational, and future expansion needs.
- Notice. The equipment owner shall provide reasonable notice to the property owner when requesting access for site assessment, equipment installation, or other relevant purposes. Such access shall not be provided unless the parties mutually agree to the date, time, and purpose of each access. Agreement on the terms of the access shall not be unreasonably withheld or delayed.
- 14.1.3 Removal of Installed Equipment. Following reasonable notice, the equipment owner shall be required, at its own expense, to remove or relocate equipment, at the request of the property owner, provided that the equipment owner shall not be required to do so if it would have a negative impact on the reliability of the service provided, or be prevented from performing its own obligations or exercising its rights under this Operating Agreement.
- Costs. The equipment owner shall repair at its own expense any property damage it causes in exercising its rights and shall reimburse the property owner for any other reasonable costs that it may be required to incur to accommodate the equipment owner's exercise of its rights under this Section 14.1.
- 14.2 Rights to Assets. The Parties shall not interfere with each other's assets, without prior written agreement.
- 14.3 Inspection of Facilities. In order to meet their respective obligations under this Operating Agreement, each Party may view or inspect facilities owned by the other Party. Provided that reasonable notice is given, a Party shall not unreasonably deny access to relevant facilities for viewing or inspection by the requesting Party.
- 14.4 Access During Emergencies. Either Party shall have rights of access, without prior notice, to the other Party's equipment as necessary during times of a System Emergency.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

SCHEDULE 15

PENALTIES AND SANCTIONS

Intentionally left blank, initially, in accordance with Section 11.8

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

CAISO TARIFF APPENDIX B.9 Dynamic Scheduling Host Balancing Authority Operating Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[BALANCING AUTHORITY]

DYNAMIC SCHEDULING HOST BALANCING AUTHORITY OPERATING AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

DYNAMIC SCHEDULING HOST BALANCING AUTHORITY

OPERATING AGREEMENT

THIS DYNAMIC SCHEDULING HOST BALANCING AUTHORITY OPERATING AGREEMENT

("AGREEMENT") is established this day of, and is accepted by	by and between:
[Full legal name] ("Host Balancing Authority"), having its registered and principal exec [address],	cutive office at
and	
California Independent System Operator Corporation ("CAISO"), a California nonpression having a principal executive office located at such place in the State of Cal Governing Board may from time to time designate, initially 151 Blue Ravine Road, Fols 95630.	ifornia as the CAISO

Whereas:

- **A.** The Parties named above operate Balancing Authority Areas.
- B. The Parties wish to coordinate operation of dynamic scheduling functionality to satisfy North American Electric Reliability Corporation ("NERC") policies, Western Electricity Coordinating Council ("WECC") Minimum Operating Reliability Criteria ("MORC"), and Good Utility Practice.

The Host Balancing Authority and the CAISO are hereinafter referred to as the "Parties".

- C. The Host Balancing Authority does not have an Interconnected Balancing Authority Area Operating Agreement ("IBAAOA") with the CAISO and desires to implement an agreement to facilitate dynamic scheduling from System Resources in its Balancing Authority Area to the CAISO Balancing Authority Area without an IBAAOA.
- **D.** The Parties wish to enter into this Agreement to establish the terms and conditions for the operation of the dynamic scheduling functionality from Host Balancing Authority's Balancing Authority Area to the CAISO Balancing Authority Area.
- **E.** The CAISO has certain statutory obligations under California law to maintain power system reliability.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

1. **Term and Termination**

1.1 **Effective Date**

This Agreement shall be effective as of the date set forth above, unless this Agreement is accepted for filing and made effective by the Federal Energy Regulatory Commission ("FERC") on some other date, if FERC filing is required, and shall continue in effect until terminated.

1.2 **Termination**

This Agreement may be terminated by either Party upon thirty (30) days written notice to the other Party or upon mutual consent of both Parties. For entities subject to FERC jurisdiction, termination will be effective upon acceptance by FERC of notice of termination, if this Agreement has been filed with FERC, or thirty (30) days after the date of the notice of termination by a Party, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders. The CAISO shall timely file any required notice of termination with FERC. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination with FERC within sixty (60) days after issuance of the notice of termination by a Party; or (2) the CAISO files the notice of termination with FERC in accordance with the requirements of FERC Order No. 2001.

2. **Definitions**

2.1 **WECC Definitions**

Except as defined below, terms and expressions used in this Agreement shall have the same meanings as those contained in the WECC Glossary of WECC Terms and Acronyms.

Specific Definitions 2.2

- 2.2.1 CAISO Dynamic Scheduling Protocol: The CAISO's Dynamic Scheduling Protocol, which is set forth in Appendix X of the CAISO Tariff.
- 2.2.2 CAISO Tariff: CAISO Operating Agreement, Protocols, and Tariff as amended from time to time, together with any appendices or attachments thereto.
- 2.2.3 Good Utility Practice: Any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry in the WECC region during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

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Issued on: December 21, 2007

- Point of Contact: A person or entity having the authority to receive and act upon scheduling or dispatch communications from the other Balancing Authority and available through a communications device mutually agreed upon on a 24-hour. 7-day basis.
- 2.2.5 **Scheduling Coordinator:** An entity certified by the CAISO for the purposes of undertaking the functions of: submitting bids or schedules for energy, generation, transmission losses, and ancillary services; coordinating generation; tracking, billing, and settling trades with other Scheduling Coordinators; submitting forecast information; paying the CAISO's charges; and ensuring compliance with CAISO protocols.
- 2.2.6 System Resource: "System Resource" is defined in the CAISO Tariff and, in the context of this Agreement, may include combinations of resources as described in the CAISO Dynamic Scheduling Protocol.

3 General

3.1 **Purpose**

This Agreement sets forth the requirements that must be satisfied by the Host Balancing Authority should it elect to support Scheduling Coordinators' requests for implementation of a dynamic scheduling functionality and delivery of energy and energy associated with ancillary services (except regulation service) into the CAISO Balancing Authority Area. The requirements encompass technical (energy management system ("EMS")/ automatic generation control ("AGC") and communications), interchange scheduling, telemetry, and aspects of Balancing Authority Area operations.

3.2 **NERC/WECC Operating Standards Observed**

Nothing in this Agreement is intended to change, supersede, or alter either Party's obligations to abide by NERC standards and policies and WECC criteria.

3.3 **Applicable Standards**

This Agreement incorporates, by reference, the CAISO Dynamic Scheduling Protocol.

3.4 Communication

The CAISO and the Host Balancing Authority shall each operate and maintain a 24-hour, 7-day control center with real-time scheduling and control functions. Appropriate control center staff will be provided by each Party who shall be responsible for operational communications and who shall have sufficient authority to commit and bind that Party. The CAISO and the Host Balancing Authority shall jointly develop communication procedures necessary to support scheduling and dispatch functions. The Points of Contact and the procedures for insuring reliable communication are identified in Schedule 1.

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4. **Telecommunications Requirements**

The CAISO and Host Balancing Authority shall establish and maintain real-time, redundant, diversely routed, communications links between the CAISO EMS and the Host Balancing Authority EMS, with the primary link utilizing the standard inter-control center communications protocol ("ICCP") in accordance with the CAISO Dynamic Scheduling Protocol for the dynamically scheduled System Resources listed in Schedule 2.

5. **Telemetry**

For each operating hour for which a System Resource is scheduled to deliver energy, and/or energy associated with any of the non-regulating ancillary services to the CAISO Balancing Authority Area, the Host Balancing Authority shall provide, via the ICCP communication links to the CAISO EMS, the data for each System Resource, as set forth in the CAISO Dynamic Scheduling Protocol.

6. Interchange Scheduling Requirements

6.1 **Dynamic Scheduling**

The Host Balancing Authority shall support Scheduling Coordinators' requests to arrange dynamic interchange schedules for the delivery of energy to the CAISO Balancing Authority Area, reflecting the System Resource's instantaneous energy production or allocation level and taking into account available transmission capacity.

6.2 Treatment of Area Control Error ("ACE")

The Host Balancing Authority shall instantaneously compensate its AGC for the System Resource's energy output that is generated or allocated for establishing the dynamic schedule to the CAISO such that the System Resource energy production or allocation changes have an equal in magnitude and opposite in sign effect on the Host Balancing Authority's ACE.

6.3 Integration of Dynamic Scheduling

For each operating hour during which energy was dynamically scheduled for delivery to the CAISO Balancing Authority Area, the Host Balancing Authority shall compute an integrated amount of interchange based on the System Resource's integrated energy production, by integrating the instantaneous System Resource production levels. Such integrated MWH value shall be agreed to hourly by the real-time schedulers.

6.4 Delivery of Megawatts ("MW")

The Host Balancing Authority shall not be obligated to make up any difference between the dynamic energy schedule and the MW being generated or allocated by the System Resource.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

6.5 Access to Information

The Parties agree to exchange information related to telemetry sent and received with respect to the delivery of energy (i) at the request of the other Party for purposes of after-the-fact interchange accounting or (ii) on demand for any other purpose.

7. Other Host Balancing Authority Responsibilities

7.1 **Operational Jurisdiction**

The Host Balancing Authority will have, at a minimum, the level of operational jurisdiction over the System Resource and the associated dynamic schedule that NERC and WECC vest in Host Balancing Authorities.

7.2 E-Tagging

The Host Balancing Authority must support associated e-tagging as described in the CAISO Dynamic Scheduling Protocol and deemed to be consistent with NERC and/or WECC requirements.

7.3 **Real-Time Adjustments**

The Host Balancing Authority must have a means to manually override and/or otherwise adjust the dynamic signal in real-time, if needed.

7.4 **Coordination with Other Balancing Authorities**

The Host Balancing Authority must provide in real-time the instantaneous value of each dynamic schedule to every intermediary Balancing Authority Area through whose systems such dynamic schedule may be implemented to the CAISO.

8. Other

8.1 Losses

The CAISO shall not be responsible for transmission losses caused by transmitting energy dynamically within or across the Host Balancing Authority's Balancing Authority Area for delivery to the CAISO.

8.2 Certification

Only CAISO-certified System Resource/Host Balancing Authority arrangements will be allowed to bid or self provide ancillary services in the CAISO's ancillary services market through a CAISOcertified Scheduling Coordinator.

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8.3 No Guarantee of Award

Certification of a System Resource/Host Balancing Authority arrangement allows for bidding of energy and/or certain ancillary services into the CAISO market; it does not, however, guarantee selection of such bid.

8.4 **Performance Assessment**

The CAISO will monitor and measure dynamically imported ancillary services, whether bid or selfprovided, against the performance benchmarks described in the CAISO Dynamic Scheduling Protocol.

8.5 **Description of System Resources**

Each dynamically scheduled System Resource permitted pursuant to this Agreement is described in Schedule 2.

Notifications 9.

The CAISO and the Host Balancing Authority shall jointly develop methods for coordinating the notification of all affected scheduling entities within their respective Balancing Authority Areas regarding schedule changes in emergency or curtailment conditions.

10 Liability

10.1 **Uncontrollable Forces**

An Uncontrollable Force means any act of God, labor disturbance, act of the public enemy, war. insurrection, riot, fire, storm, flood, earthquake, explosion, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of a Balancing Authority which could not be avoided through the exercise of Good Utility Practice.

Neither the CAISO nor the Host Balancing Authority will be considered in default of any obligation under this Agreement or liable to the other for direct, indirect, and consequential damages if prevented from fulfilling that obligation due to the occurrence of an Uncontrollable Force. Neither the CAISO nor the Host Balancing Authority will be considered in default of any obligation under this Agreement to the extent caused by any act, or failure to act, of any intermediary Balancing Authority.

In the event of the occurrence of an Uncontrollable Force, which prevents either the CAISO or the Host Balancing Authority from performing any obligations under this Agreement, the affected entity shall not be entitled to suspend performance of its obligations in any greater scope or for any longer duration than is required by the Uncontrollable Force. The CAISO and the Host Balancing Authority shall each use its best efforts to mitigate the effects of such Uncontrollable Force, remedy its inability to perform, and resume full performance of its obligations hereunder.

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10.2 Liability To Third Parties

Except as otherwise expressly provided herein, nothing in this Agreement shall be construed or deemed to confer any right or benefit on, or to create any duty to, or standard of care with reference to any third party, or any liability or obligation, contractual or otherwise, on the part of CAISO or the Host Balancing Authority.

10.3 Liability Between the Parties

The Parties' duties and standard of care with respect to each other, and the benefits and rights conferred on each other, shall be no greater than as explicitly stated herein. Neither Party, its directors, officers, employees, or agents, shall be liable to the other Party for any loss, damage, claim, cost, charge, or expense, whether direct, indirect, or consequential, arising from the Party's performance or nonperformance under this Agreement, except for a Party's gross negligence, or willful misconduct.

11 **Miscellaneous**

11.1 Assignments

Either Party to this Agreement may assign its obligations under this Agreement, with the other Party's prior written consent. Such consent shall not be unreasonably withheld.

Obligations and liabilities under this Agreement shall be binding on the successors and assigns of the Parties. No assignment of this Agreement shall relieve the assigning Party from any obligation or liability under this Agreement arising or accruing prior to the date of assignment.

11.2 Notices

Any notice, demand, or request which may be given to or made upon either Party regarding this Agreement shall be made in writing and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 3 and shall be deemed properly served, given, or made: (a) upon delivery if delivered in person, (b) five (5) days after deposit in the mail if sent by first class United States mail, postage prepaid, (c) upon receipt of confirmation by return facsimile if sent by facsimile, or (d) upon delivery if delivered by prepaid commercial courier service. A Party must update the information in Schedule 3 relating to its address as that information changes. Such changes shall not constitute an amendment to this Agreement.

11.3 Waivers

Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or matter arising in connection with this Agreement. Any delay short of the statutory period of limitations, in asserting or enforcing any right under this Agreement, shall not constitute or be deemed a waiver of such right.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

11.4 Governing Law and Forum

Subject to ICAA 11.5, this Agreement shall be deemed to be a contract made under and for all purposes shall be governed by and construed in accordance with the laws of the State of California. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement shall be brought in any of the following forums, as appropriate: a court of the State of California or any federal court of the United States of America located in the State of California or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission. No provision of this Agreement shall be deemed to waive the right of any Party to protest, or challenge in any manner, whether this Agreement, or any action or proceeding arising under or relating to this Agreement, is subject to the jurisdiction of the Federal Energy Regulatory Commission.

11.5 Consistency with Federal Laws and Regulations

- (a) Nothing in this Agreement shall compel any person or federal entity to: (1) violate federal statutes or regulations; or (2) in the case of a federal agency, to exceed its statutory authority, as defined by any applicable federal statutes, regulations, or orders lawfully promulgated thereunder. If any provision of this Agreement is inconsistent with any obligation imposed on any person or federal entity by federal law or regulation to that extent, it shall be inapplicable to that person or federal entity. No person or federal entity shall incur any liability by failing to comply with any provision of this Agreement that is inapplicable to it by reason of being inconsistent with any federal statutes, regulations, or orders lawfully promulgated thereunder; provided, however, that such person or federal entity shall use its best efforts to comply with the CAISO Tariff to the extent that applicable federal laws, regulations, and orders lawfully promulgated thereunder permit it to do so.
- (b) If any provision of this Agreement requiring any person or federal entity to give an indemnity or impose a sanction on any person is unenforceable against a federal entity, the CAISO shall submit to the Secretary of Energy or other appropriate Departmental Secretary a report of any circumstances that would, but for this provision, have rendered a federal entity liable to indemnify any person or incur a sanction and may request the Secretary of Energy or other appropriate Departmental Secretary to take such steps as are necessary to give effect to any provisions of this Agreement that are not enforceable against the federal entity.

11.6 Severability

If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

11.7 Section Headings

Section headings provided in this Agreement are for ease of reading and are not meant to interpret the text in each Section.

11.8 Amendments

This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that are subject to FERC approval shall not take effect until FERC has accepted such amendments for filing and has made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO or the Host Balancing Authority to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

11.9 Counterparts

This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: December 21, 2007

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1118

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date first written above.

California Independent System Operator Corporation

Ву:					
Name:					
-					
Date:					
[Full legal name of Host Balancing Authority]					
By:					
Name:					

SCHEDULE 1

POINTS OF CONTACT [Section 3.4]

OPERATIONAL CONTACT

CAISO: Transmission Dispatcher (Folsom-Primary):	
Transmission Dispatcher (Alhambra-Backup):	
Generation Dispatcher (Folsom-Primary):	
Generation Dispatcher (Alhambra-Backup):	
Real-Time Scheduler (Folsom):	
Real-Time Scheduler (Alhambra):	
Pre Scheduler:	
Shift Supervisor:	
Control Room Fax:	
Outage Coordination: Fax:	
Director of Grid Operations:	
WECC Reliability Coordinator:	
Address:	California ISO 151 Blue Ravine Road P.O. Box 639014 Folsom, CA 95763-9014

OPERATIONAL CONTACT

Host Balancing Authority: Transmission Dispatcher (Primary):	
Transmission Dispatcher (Backup):	
Generation Dispatcher (Primary):	
Generation Dispatcher (Backup):	
Real-Time Scheduler:	
Dispatch Supervisor:	
Outage Coordination:	
Fax:	
Chief Dispatcher:	
Address:	

SCHEDULE 2

DESCRIPTION OF DYNAMICALLY SCHEDULED SYSTEM RESOURCES [Section 4]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

SCHEDULE 3

NOTICES [Section 11.2]

Host Balancing Author	rity
Name of Primary	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code	
Email Address:	
Phone:	
Fax No:	

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 1123

CAISO

Name of Primary Representative:	
Title:	
Address:	
City/State/Zip Code	
Email Address:	
Phone:	
Fax No:	
Name of Alternative Representative:	
Title:	
Address:	
City/State/Zip Code	
Email Address:	
Phone:	
Fax No:	

CAISO TARIFF APPENDIX B.10 Small Utility Distribution Company Operating Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

AND

[SMALL UTILITY DISTRIBUTION COMPANY]

SMALL UTILITY DISTRIBUTION COMPANY OPERATING AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SMALL UTILITY DISTRIBUTION COMPANY **OPERATING AGREEMENT**

	THIS OPERATING AGREEMENT between:	T is dated	this d	ay of	:	,		and is er	ntered in	to,
(1)	[Full legal name of SUDC], ha [Address] (the "SUDC");	aving its	registered	and	principal	place	of	business	located	at
	and									

(2) California Independent System Operator Corporation, a California non-profit public benefit corporation having its principal place of business located in such place in the State of California as the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").

The SUDC and the CAISO are hereinafter referred to individually as "Party" and collectively as "Parties".

Whereas:

- A. The purpose of this Operating Agreement is to establish the rights and obligations of the SUDC and the CAISO with respect to the SUDC's Facilities interconnected with the CAISO Controlled Grid and the SUDC's cooperation and coordination with the CAISO regarding reliability and the operational control of the CAISO Controlled Grid and the SUDC's Distribution System.
- The SUDC owns and operates a small Distribution System within the CAISO Balancing Authority B. Area subject to the authority of a Local Regulatory Authority.
- C. The SUDC wishes to receive and transmit Energy and/or Ancillary Services to and/or from the CAISO Controlled Grid under the terms and conditions set forth in the CAISO Tariff.
- The CAISO has certain statutory obligations under California law to maintain the reliability of the D. CAISO Controlled Grid.
- E. The Parties recognize that while a single SUDC has little or no ability to materially, adversely affect reliability of the CAISO Controlled Grid or the CAISO Balancing Authority Area, the SUDC agrees to support and be part of the coordinated response to System Emergencies and to reliability concerns relating to the CAISO Balancing Authority Area as set forth in this Operating Agreement.
- F. This Operating Agreement obligates the SUDC to comply with the sections of the CAISO Tariff, the CAISO Operating Procedures and the CAISO Specifications specified in this Operating Agreement.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, THE PARTIES **AGREE** as follows:

ARTICLE I DEFINITIONS AND INTERPRETATION

1.1 Master Definitions Supplement. Unless defined in Section 1.2 of this Operating Agreement, all defined terms and expressions used in this Operating Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

- 1.2 Special Definitions for this Operating Agreement. In this Operating Agreement, the following words and expressions shall have the meanings set opposite them:
 - "CAISO Specifications" means those standards pertaining to the areas of operation listed in Article IV of this Operating Agreement and listed in Schedule 6, approved by the CAISO to establish detailed technical performance and reliability parameters at the CAISO Controlled Grid and SUDC Interconnection, associated with the CAISO Tariff, as those standards may be amended from time to time.
 - "CAISO Operating Procedures" means those procedures pertaining to the areas of operation listed in Article IV of this Operating Agreement and listed in Schedule 9, created by the CAISO to establish detailed operating procedures at the CAISO Controlled Grid and SUDC Interconnection, associated with general provisions required in the CAISO Tariff, as those standards may be amended from time to time.
 - "SUDC Facilities" shall have the meaning accorded to such term as provided in Section 3.2 of this Operating Agreement.
- 1.3 Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Operating Agreement:
 - if there is any inconsistency between this Operating Agreement and the CAISO Tariff, the (a) CAISO Tariff will prevail to the extent of the inconsistency:
 - the singular shall include the plural and vice versa; (b)
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of (e) this Operating Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference in this Operating Agreement to a given agreement, instrument or the CAISO Tariff shall be a reference to that agreement, instrument or the CAISO Tariff as modified, amended, supplemented or restated through the date as of which such reference is made;
 - unless the context otherwise requires, references to any law shall be deemed references to (g) such law as it may be amended, replaced or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
 - unless the context otherwise requires, any reference to a Party includes a reference to its (i) permitted successors and assigns:
 - (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
 - (k) the captions and headings in this Operating Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Operating Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE II TERM AND TERMINATION

- 2.1 Effective Date. This Operating Agreement shall be effective as of the date it is accepted for filing and made effective by the FERC, if such FERC filing is required, and shall remain in full force and effect until the earlier of the termination date, the termination of the Transmission Control Agreement or such other date as the Parties shall mutually agree. With respect to any such termination, the CAISO must file a timely notice of termination with FERC, if such FERC filing is required, and this Operating Agreement shall terminate on the date FERC permits such a notice of termination to be effective, if such FERC filing is required.
- 2.2 Termination Date.
- **2.2.1 Termination by Default.** Either Party (the terminating Party) may terminate this Operating Agreement by giving written notice in the event that the other Party (the defaulting Party) commits any default under this Operating Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within 30 days after the terminating Party has given the defaulting Party written notice of the default, unless excused by reason of Uncontrollable Forces under Article X of this Operating Agreement.
- 2.2.2 Failure To Meet SUDC Definition. Failure of a SUDC to satisfy the CAISO Tariff definition of a SUDC shall be grounds for the CAISO to terminate this Operating Agreement. In the event the CAISO believes the SUDC no longer satisfies the CAISO Tariff definition of a SUDC, the CAISO shall provide written notification of the same to the SUDC and the SUDC shall have 60 days to respond. Following the 60-day response period and regardless of the position of the SUDC, if the CAISO believes the SUDC no longer satisfies the CAISO Tariff definition of a SUDC regardless of the response, the CAISO may file a notice of termination with FERC in accordance with Section 2.2.3.
- 2.2.3 Filing. With respect to any notice of termination given pursuant to this Section 2.2, the CAISO must file a timely notice of termination with FERC, if this Operating Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request by either Party to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within 30 days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Operating Agreement shall terminate on the date FERC permits such a notice of termination to be effective, if filed with FERC, or thirty (30) days after the date of the notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE III GENERAL TERMS AND CONDITIONS

3.1 SUDC Responsibilities. The SUDC will be responsible to operate and maintain its SUDC Facilities in accordance with applicable reliability standards, statutes, and regulations and Good Utility Practice so as to avoid any material adverse impact on the reliability of the CAISO Balancing Authority Area and the CAISO Controlled Grid.

- 3.2 Interconnection and SUDC Facilities. Schedule 1 sets forth the SUDC's Generating Units, if any, and those facilities that comprise the interconnection of the SUDC Distribution System and the CAISO Controlled Grid. These facilities will be considered the "SUDC Facilities" and, except as otherwise expressly provided, the provisions of this Operating Agreement shall apply only to such SUDC Facilities.
- 3.3 Non-SUDC Facilities. To assist the CAISO in cataloging non-SUDC facilities located in the CAISO Balancing Authority Area and for information purposes only, Schedule 2 sets forth any non-SUDC Generating Units or other facilities that are interconnected to the SUDC Distribution System. Such non-SUDC facilities are not owned or operated by the SUDC.
- 3.4 Agreement Subject to CAISO Tariff. Notwithstanding anything to the contrary herein, the Parties agree that they will comply with Section 4.11 of the CAISO Tariff, and any other applicable provisions of the CAISO Tariff specifically referenced in this Operating Agreement. This Operating Agreement shall be subject to such provisions of the CAISO Tariff, which shall be deemed to be incorporated to the extent referenced herein, as the same may be changed or superseded from time to time pursuant to Sections 22.10 and 22.4.3 of the CAISO Tariff. Nothing in this Operating Agreement shall affect in any way the authority of the CAISO to unilaterally make application to FERC for a change in the CAISO Tariff under Section 205 of the Federal Power Act, nor shall anything in this Operating Agreement affect the right of either Party to file a complaint under Section 206 of the Federal Power Act regarding the CAISO Tariff.
- **3.5** Operation of CAISO Controlled Grid. The CAISO shall operate the CAISO Balancing Authority Area and the CAISO Controlled Grid in accordance with the CAISO Tariff and the Transmission Control Agreement to which it is a party.
- 3.6 CAISO Specifications and CAISO Operating Procedures.
- 3.6.1 Compliance with CAISO Specifications and CAISO Operating Procedures. The SUDC will abide by and will perform all of the obligations under the CAISO Specifications identified in Schedule 6 and CAISO Operating Procedures identified in Schedule 9 in respect of all matters set forth therein as the same may be changed or superseded from time to time pursuant to the procedures set forth in Sections 22.10 and 22.4.3 of the CAISO Tariff. In the event of any conflict or dispute over interpretation, those sections of the CAISO Tariff identified herein shall, at all times, take precedence over such CAISO Specifications and CAISO Operating Procedures. The CAISO shall not implement any reliability requirements, operating requirements or performance standards that would impose increased costs on the SUDC without giving due consideration to whether the benefits of such requirements or standards are sufficient to justify such increased costs. In any proceeding concerning the cost recovery by the SUDC of capital and operation and maintenance costs incurred to comply with CAISO Specifications and CAISO Operating Procedures, the CAISO shall to the extent practicable, at the request of the SUDC, provide specific information in a form that may be readily understood by the general public regarding the nature of, and need for, the CAISO-imposed requirements or standards to enable the SUDC to use this information in public hearings in support of cost recovery through rates and tariffs.

- 3.6.2 Review of CAISO Specifications and CAISO Operating Procedures. The CAISO shall periodically review with the SUDC the CAISO Specifications identified in Schedule 6 and CAISO Operating Procedures identified in Schedule 9 and shall modify such CAISO Specifications and/or CAISO Operating Procedures as provided in Section 3.6.1. If a new CAISO Specification or CAISO Operating Procedure applicable to the SUDC is adopted pursuant to Section 3.6.1, the CAISO shall provide a revised version of Schedule 6 or Schedule 9 to the SUDC. Any changes to Schedule 6 or Schedule 9 will not constitute an amendment to this Operating Agreement.
- **3.6.3 Periods When Compliance is Required.** While awaiting dispute resolution or regulatory review, the SUDC shall not be required to comply with changes to the CAISO Specifications and CAISO Operating Procedures, except where compliance is necessary in order to prevent or remedy an imminent System Emergency.
- 3.7 Utilization of Certified Scheduling Coordinator. The SUDC shall utilize a CAISO-certified Scheduling Coordinator to submit Bids for Energy and Ancillary Services to or from the CAISO Controlled Grid. At the time when the SUDC retains such Scheduling Coordinator, the SUDC shall confirm that the Scheduling Coordinator has entered into a Scheduling Coordinator Agreement with the CAISO that is currently in effect.
- **3.8 Single Point of Contact.** The CAISO and the SUDC shall each provide a single point of contact for the exchange of operational procedures and information. Details of requirements relating to and the identity of the initial points of contact are set forth in Schedule 3.
- 3.9 SUDC Compliance. In the event the CAISO believes that the SUDC has failed to comply with any provision of the CAISO Tariff created after the effective date applicable to the SUDC in accordance with this Operating Agreement, the CAISO shall notify the SUDC of such alleged failure and, if requested, shall meet with the SUDC regarding such alleged failure to comply. If the Parties cannot reach agreement on the alleged failure to comply, then the CAISO may, if applicable, invoke Section 2.2.1 of this Operating Agreement.

ARTICLE IV OPERATIONAL COORDINATION

4.1 Maintenance Coordination. The SUDC shall coordinate its SUDC Facilities Outage requirements with the Participating TO with which it is interconnected. The SUDC will provide the CAISO with copy of any written information regarding Outages of the SUDC Facilities that could cause a material adverse impact on the reliability of the CAISO Controlled Grid. To the extent the SUDC schedules maintenance of SUDC Facilities that has a reasonable potential to cause a material adverse impact to reliability of the CAISO Controlled Grid, the SUDC shall notify the CAISO of such maintenance when it becomes known, and that information will be updated quarterly or as changes occur to the proposed schedule. Consistent with the SUDC's normal record generation and retention practices, the SUDC will record the details for all such work and shall provide available records when it is known, quarterly, or upon written request by the CAISO.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

- **4.2 System Emergencies.** The responsibilities of the Parties in relation to System Emergencies are stated in Sections 4.11.4, 4.11.5, as well as Section 34 and Section 7 of the CAISO Tariff, the CAISO Operating Procedures identified in Schedule 9, and in Schedule 4.
- 4.3 System Emergency Response. The SUDC will participate in Load Shedding by reducing Load on a voluntary basis when the CAISO declares a Stage 1 System Emergency. The SUDC will use any available local communication infrastructure to request that its customers curtail their electricity usage. The SUDC will not be called separately in Stage 3 System Emergencies to manually shed Load. Load restoration of any voluntary Load reduction may not commence until such time as the CAISO declares that a System Emergency no longer exists. The responsibilities of the Parties to direct and to accept direction for Load reduction or other emergency plans are stated in Sections 4.11.4 and 4.11.5 of the CAISO Tariff, and the CAISO Operating Procedures identified in Schedule 9 and CAISO Specifications identified in Schedule 6.
- **System Disturbance Load Restoration.** The responsibilities of the Parties for restoring Load following a system disturbance are stated in Section 4.11.5.2 of the CAISO Tariff, the CAISO Operating Procedures identified in Schedule 9 and CAISO Specifications identified in Schedule 6, and in Schedule 5.
- **4.5 Interconnection Operation Standards.** The CAISO and SUDC shall maintain stable established operating parameters and control power and reactive flow within standards stated in Schedule 6.
- 4.6 Records, Information and Reports. The Parties are required to maintain such records, to share information, and to make such reports as are stated in Sections 4.11.1.2, 4.11.6 and 4.11.8 of the CAISO Tariff, and the CAISO Operating Procedures identified in Schedule 9 and the CAISO Specifications identified in Schedule 6. In accordance with Schedule 7, the SUDC will cooperate with the CAISO regarding its collection, study and transmittal of system data, information, reports, and forecasts, provided that the SUDC need only provide available information to the CAISO. Upon the request of the CAISO, the SUDC will cooperate with the CAISO regarding any CAISO review following a major Outage and provide any requested information that is available.
- **4.7 Critical Protective Systems.** The SUDC shall (in accordance with Section 11.2 of this Operating Agreement) notify the CAISO as soon as it is reasonably practicable of any condition that it becomes aware of that may compromise the CAISO Controlled Grid Critical Protective Systems.
- **4.8 SUDC Distribution System.** The CAISO shall (in accordance with Section 11.2 of this Operating Agreement) notify the SUDC as soon as is reasonably practicable of any condition which the CAISO becomes aware that may compromise the operation and reliability of the SUDC Distribution System.

ARTICLE V ACCESS TO FACILITIES

Access Rights. Pursuant to Section 4.11.9.1 of the CAISO Tariff and Schedule 8 of this Operating Agreement, the CAISO and the SUDC shall each have the right to install or to have installed equipment or other facilities, including metering equipment, on the electric utility property of the other necessary for the implementation of this Operating Agreement. The CAISO's installation of

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equipment on the property of the SUDC shall comply with Local Regulatory Authority regulations, except where compliance with Local Regulatory Authority regulations would cause the CAISO to violate the CAISO Tariff, and with all relevant safety standards. In such case, the SUDC and CAISO will work together to resolve the conflict between the Local Regulatory Authority regulations and the CAISO Tariff.

- **Meter Testing.** The SUDC shall, at the request of the CAISO and upon reasonable notice, provide access to its facilities necessary to permit the CAISO or a CAISO-approved meter inspector to perform such testing as necessary in accordance with Section 4.11.9.2 or 4.11.9.4 of the CAISO Tariff and the procedures set forth in Schedule 8. For meters that are not owned by the SUDC, the CAISO will obtain approval from the meter owner in advance of accessing SUDC's Facilities. Such approval shall be provided to the SUDC upon request.
- 5.3 Emergency Access Rights. The CAISO shall have a right to access the SUDC's equipment or other facilities during a System Emergency in accordance with Section 4.11.9.3 of the CAISO Tariff. In a System Emergency, the SUDC shall have a right of access to CAISO equipment on SUDC property and SUDC equipment on CAISO property without notice.

ARTICLE VI COSTS

- **SUDC Operating and Maintenance Costs.** The SUDC shall be responsible for all costs incurred in connection with procuring, installing, operating and maintaining its facilities identified in Schedule 1 for the purpose of meeting its obligations under this Operating Agreement.
- **6.2 CAISO Operating and Maintenance Costs.** The CAISO shall be responsible for the procurement, installation, operation and maintenance costs of CAISO equipment set out in Article V of this Operating Agreement installed on SUDC property.

ARTICLE VII DISPUTE RESOLUTION

7.1 Alternative Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Operating Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that all reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the SUDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

ARTICLE VIII REPRESENTATIONS AND WARRANTIES

8.1 Representations and Warranties. Each Party represents and warrants that its execution, delivery and performance of this Operating Agreement has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.

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8.2 Necessary Approvals. Each Party represents that all necessary approvals, permits, licenses, easements, right of way or access to install, own and operate its facilities subject to this Operating Agreement have been obtained prior to the effective date of this Operating Agreement.

ARTICLE IX LIABILITY

9.1 Extent of Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Operating Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the SUDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

ARTICLE X UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Operating Agreement, except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the SUDC and references to the CAISO Tariff shall be read as references to this Operating Agreement.

ARTICLE XI MISCELLANEOUS

- **11.1 Assignments.** Either Party may assign its obligations under this Operating Agreement, with the other Party's prior written consent, in accordance with Section 22.2 of the CAISO Tariff, which is incorporated by reference into this Operating Agreement. Such consent shall not be unreasonably withheld.
- 11.2 Notices. Any notice, demand or request which may be given to or made upon either Party regarding this Operating Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, which is incorporated by reference, except that all reference in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the SUDC and references to the CAISO Tariff shall be read as references to this Operating Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 3. A Party must update the information in Schedule 3 of this Operating Agreement as that information changes in accordance with Section 22.4 of the CAISO Tariff. Such changes will not constitute an amendment to this Operating Agreement.
- 11.3 Waivers. Any waiver at any time by either Party of its rights with respect to any default under this Operating Agreement, or with respect to any other matter arising in connection with this Operating Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or matter arising in connection with this Operating Agreement. Any delay short of the statutory period of limitations, in asserting or enforcing any right under this Operating Agreement, shall not constitute or be deemed a waiver of such right.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

11.4 Governing Law and Forum. This Operating Agreement shall be deemed to be a contract made under and for all purposes shall be governed by and construed in accordance with the laws of the State of California except in its conflict of laws provisions. The Parties irrevocably consent that any legal action or proceeding arising under or in relation to this Operating Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.

11.5 Consistency with Federal Laws and Regulations.

- (a) Nothing in this Operating Agreement shall compel any person or federal entity to: (1) violate federal statutes or regulations; or (2) in the case of a federal agency, to exceed its statutory authority, as defined by any applicable federal statutes, regulations, or orders lawfully promulgated thereunder. If any provision of this Operating Agreement is inconsistent with any obligation imposed on any person or federal entity by federal law or regulation to that extent, it shall be inapplicable to that person or federal entity. No person or federal entity shall incur any liability by failing to comply with this Operating Agreement that is inapplicable to it by reason of being inconsistent with any federal statutes, regulations, or orders lawfully promulgated thereunder; provided, however, that such person or federal entity shall use its best efforts to comply with the CAISO Tariff to the extent that applicable federal laws, regulations, and orders lawfully promulgated thereunder permit it to do so.
- (b) If any provision of this Operating Agreement requiring any person or federal entity to give an indemnity or impose a sanction on any person is unenforceable against a federal entity, the CAISO shall submit to the Secretary of Energy or other appropriate Departmental Secretary a report of any circumstances that would, but for this provision, have rendered a federal entity liable to indemnify any person or incur a sanction and may request the Secretary of Energy or other appropriate Departmental Secretary to take such steps as are necessary to give effect to any provisions of this Operating Agreement that are not enforceable against the federal entity.
- **11.6 Integration.** This Operating Agreement constitutes the full agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 11.7 Severability. If any term, covenant, or condition of this Operating Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Operating Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Operating Agreement.

11.8 Penalties. Any penalties to be levied under this Operating Agreement shall be established in accordance with the CAISO Tariff and approved by the FERC. Nothing in this Operating Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the SUDC to oppose or protest any penalty proposed by the CAISO to the FERC or the specific imposition by the CAISO of any FERC-approved penalty on the SUDC.

11.9 [NOT USED]

- 11.10 Amendments. This Operating Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO to unilaterally make application to FERC for a change in the rates, terms and conditions of this Operating Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the SUDC shall have the right to make a unilateral filing with FERC to modify this Operating Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Operating Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- **11.11 Counterparts.** This Operating Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Operating Agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Operating Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

litle:			
[Full na	me of SUDC]		
By:			
Name:			
Title: Date:		 	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

SCHEDULE 1

SYSTEM INTERCONNECTION FACILITIES

[List to be provided in accordance with the SUDC Operating Agreement.]

SCHEDULE 2

Non-SUDC FACILITIES

[List to be provided in accordance with the SUDC Operating Agreement.]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

SCHEDULE 3

OPERATIONAL CONTACTS

CONTACTS FOR NOTICES

SUDC

Name of Primary	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	

CAISO

Name of Primary	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

SCHEDULE 4

SYSTEM EMERGENCIES

The CAISO will notify the SUDC's operational contact, as identified in Schedule 2, of the emergency, including information regarding the cause, nature, extent, and potential duration of the emergency. The SUDC contact will then take such actions as are appropriate for the emergency.

The SUDC will make requests for information from the CAISO regarding emergencies through the CAISO Operations Shift Supervisor, by the SUDC's operational contact, or the SUDC may coordinate public information with the CAISO Communication Coordinator.

For transmission system caused outages the CAISO Operations Shift Supervisor will notify the SUDC contact of any information related to the outage such as cause, nature, extent, potential duration and customers affected.

Available SUDC information and CAISO Grid Control Center logs, CAISO Electric Switching Orders and CAISO Energy Management System temporal database will be used in the CAISO's preparation of outage reviews. These documents are defined as the chronological record of the operation of the activities which occur with the portion of the electrical system assigned to that control center. The log shall contain all pertinent information, including orders received and transmitted, relay operations, messages, clearances, accidents, trouble reports, daily switching program, etc.

The SUDC will retain records in accordance with its record retention policy or practice, provided the record associated with this Operating Agreement are retained for a minimum of six years.

SCHEDULE 5

SYSTEM DISTURBANCE LOAD RESTORATION

If the SUDC is required to shed load, the SUDC will follow the procedures set forth below in this Schedule 5 in promoting orderly, coordinated restoration of electric systems after a major system disturbance has occurred which resulted in Load Shedding by frequency relays in California.

- Immediately after Load Shedding has occurred in the SUDC, the SUDC will remain in contact with its respective Participating Transmission Owner (PTO) Area Control Center (ACC) until normal frequency has been restored throughout the CAISO Balancing Authority Area or the CAISO Shift Supervisor has concluded that such full-time communications can be terminated. Emergency communications over the California ACC Hot-line will be under the direction of the CAISO Shift Supervisor and the senior dispatcher present at the affected PTO ACC(s).
- 2. Manual Load restoration will not normally be initiated until the California ACC Hot Line is attended. No Load is to be manually restored unless directed by the CAISO, either directly or through its assignee, provided that the procedure for the CAISO's designation of any assignee is agreed to by the SUDC, after the frequency has recovered and there is indication that the frequency can be maintained. The SUDC will await direction from the CAISO or its assignee, who will be in contact with the CAISO Shift Supervisor. The CAISO Shift Supervisor will determine whether adequate generation resources are available on line to support the Load to be restored.
- 3. If the CAISO cannot meet the WECC and NERC Balancing Authority Area Disturbance Control Standard or the Control Performance Standard post disturbance, no manual Load restoration will be permitted. If the frequency is such that automatic Load restoration occurs under these conditions, if the SUDC has restored Load automatically, it will manually shed an equivalent amount of Load to offset the Load which was automatically restored.

SCHEDULE 6

INTERCONNECTION OPERATION STANDARDS

The CAISO and SUDC shall jointly maintain stable operating parameters and control power and reactive flow in accordance with the capabilities of the SUDC, the CAISO Tariff and the following interconnection operation standards.

SUDC Responsibilities

The SUDC shall operate its SUDC Facilities at each point of interconnection with the CAISO Controlled Grid in such manner as to avoid any material adverse impact on the reliability of the CAISO Controlled Grid. In accordance with this performance goal, the SUDC shall: i) operate its SUDC Facilities at each point of interconnection with the CAISO Controlled Grid in accordance with Good Utility Practice with respect to normal ratings, emergency ratings, voltage limits, and balance of load between electrical phases; and ii) maintain Load power factor at each point of interconnection with the CAISO Controlled Grid as close as reasonably possible to unity power factor and consistent with Good Utility Practice.

CAISO Responsibilities

- The CAISO shall operate the CAISO Controlled Grid at each point of interconnection with the SUDC in accordance with the CAISO Tariff and in such manner as to avoid any material adverse impact on the SUDC Facilities. In accordance with this performance goal, the CAISO shall:
- 2. At the request of the SUDC, participate with the SUDC and Participating TO in the development of joint power quality performance standards and jointly maintain compliance with such standards.
- 3. Observe SUDC grid voltage limits specified in Attachment 1 including requirements for reduced voltage on CAISO Controlled Grid facilities which apply during heavy fog (or other unusual operating conditions) as needed to minimize the risk of insulator flashover.
- 4. At the request of the SUDC, support SUDC investigation of power quality incidents, and provide related data to the SUDC in a timely manner.
- 5. Support installation of apparatus on the CAISO Controlled Grid to improve power quality, and take all reasonable measures to investigate and mitigate power quality concerns caused by actions or events in neighboring systems or Balancing Authority Areas.
- 6. Maintain, or cause to be maintained, Load power factor at each SUDC Interconnection as close as reasonably possible to unity power factor and consistent with Good Utility Practice, pursuant to Section 8.2.3.3 of the CAISO Tariff.

The Parties may adopt additional operations standards for the interconnection provided such standards are in writing and are mutually agreed to.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 6 ATTACHMENT 1

SUDC GRID VOLTAGE LIMITS

[To be determined]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

SCHEDULE 7

RECORDS, INFORMATION, REPORTS

The SUDC shall provide available information to the CAISO relating to SUDC system operations reasonably related to system reliability of the CAISO Controlled Grid. The Parties shall jointly develop any necessary forms and procedures for collection, study and transmittal of system data, information, reports and forecasts.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

SCHEDULE 8

RIGHTS OF ACCESS TO FACILITIES

- 1. Equipment Installation. In order to give effect to this Operating Agreement, a Party that requires the use of particular equipment (the equipment owner) may require installation of such equipment on property owned by the other Party (the property owner), provided that the equipment is necessary to meet the equipment owner's service obligations and that the equipment shall not have a negative impact on the reliability of the service provided, nor prevent the property owner from performing its own obligations or exercising its rights under this Operating Agreement.
- 2. Free Access. The property owner shall grant to the equipment owner free of charge reasonable installation rights and rights of access to accommodate equipment inspection, maintenance, repair, upgrading, or removal for the purposes of this Operating Agreement, subject to the property owner's reasonable safety, operational, and future expansion needs.
- 3. Notice. The equipment owner shall provide reasonable notice to the property owner when requesting access for site assessment, equipment installation, or other relevant purposes. Such access shall not be provided unless the parties mutually agree to the date, time, and purpose of each access. Agreement on the terms of the access shall not be unreasonably withheld or delayed.
- 4. Removal of Installed Equipment. Following reasonable notice, the equipment owner shall be required, at its own expense, to remove or relocate equipment, at the request of the property owner, provided that the equipment owner shall not be required to do so if it would have a negative impact on the reliability of the service provided, or be prevented from performing its own obligations or exercising its rights under this Operating Agreement.
- 5. Costs. The equipment owner shall repair at its own expense any property damage it causes in exercising its rights and shall reimburse the property owner for any other reasonable costs that it may be required to incur to accommodate the equipment owner's exercise of its rights under Section 1 or Section 4.
- Rights to Assets. The Parties shall not interfere with each other's assets, without prior 6. written agreement.
- 7. Inspection of Facilities. In order to meet their respective obligations under this Operating Agreement, the CAISO may view or inspect SUDC Facilities and the SUDC may view or inspect CAISO Controlled Grid facilities. Provided that reasonable notice is given, a Party shall not unreasonably deny access to such facilities for viewing or inspection by the requesting Party.
- 8. Access During Emergencies. Either Party shall have rights of access, without prior notice, to the other Party's equipment as necessary during times of a System Emergency.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: March 31, 2008

Issued on: December 21, 2007

SCHEDULE 9

SUDC OPERATING PROCEDURES

[To be determined.]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CAISO TARIFF APPENDIX B.11 Pro Forma CRR Entity Agreement

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

AND

[CONGESTION REVENUE RIGHTS ENTITY]

CRR ENTITY AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

CRR ENTITY AGREEMENT

THIS AGRI between:	EEMENT is dated this day of,, and is entered into, by and
(1)	[Full Legal Name] having its registered and principal place of business located at [Address] (the "CRR Entity");
and	
(2)	California Independent System Operator Corporation , a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").
The CRR E	ntity and the CAISO are hereinafter referred to individually as a "Party" and collectively as the

Whereas:

"Parties."

- A. The CAISO Tariff provides that any entity that holds or intends to hold CRRs must register and qualify with the CAISO and comply with the terms of the CAISO Tariff, regardless of whether they are to acquire CRRs through the CRR Allocation or CRR Auction, or through the Secondary Registration System.
- **B.** The CRR Entity has completed the Candidate CRR Holder application process and is eligible to participate in the CRR Allocation or CRR Auction or register as a CRR Holder through the Secondary Registration System.
- C. The CAISO Tariff further provides that any entity who wishes to participate in the CRR Allocation or CRR Auction or register as a CRR Holder through the Secondary Registration System must meet all of the Candidate CRR Holder requirements and creditworthiness provisions in the CAISO Tariff and the relevant Business Practice Manual, including demonstration of its ability to accommodate the financial responsibility associated with holding CRRs.
- **D.** The CRR Entity intends to obtain CRRs either through the CRR Allocation or CRR Auction or to register as a CRR Holder through the Secondary Registration System and, therefore, wishes to undertake to the CAISO that it will comply with the applicable provisions of the CAISO Tariff.
- **E.** The Parties are entering into this Agreement in order to establish the terms and conditions pursuant to which the CAISO and the CRR Entity will discharge their respective duties and responsibilities under the CAISO Tariff.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

ARTICLE I DEFINITIONS AND INTERPRETATION

- 1.1 Master Definitions Supplement. All terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement in Appendix A of the CAISO Tariff.
- **1.2** Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:
 - (a) if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - (e) references to a Section, Article, or Schedule shall mean a Section, Article, or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented, or restated through the date as of which such reference is made;
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced, or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization, or other entity, in each case whether or not having separate legal personality;
 - unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
 - (j) any reference to a day, week, month, or year is to a calendar day, week, month, or year;and
 - (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

ARTICLE II ACKNOWLEDGEMENTS OF CRR ENTITY AND CAISO

2.1 Scope of Application to Parties. The CRR Entity and CAISO acknowledge that all Candidate CRR Holders or CRR Holders must sign this Agreement in accordance with section 4.10.1.9.1 of the CAISO Tariff.

ARTICLE III TERM AND TERMINATION

3.1 Effective Date. This Agreement shall be effective as of the later of the date it is executed by both Parties or the date accepted for filing and made effective by FERC, if such FERC filing is required, and shall remain in full force and effect until terminated pursuant to Section 3.2 of this Agreement.

3.2 Termination

- 3.2.1 **Termination by CAISO.** Subject to Article V, the CAISO may terminate this Agreement by giving written notice to the CRR Entity of termination in the event that the CRR Entity commits any material default under this Agreement and/or the CAISO Tariff as it pertains to this Agreement which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given, to the CRR Entity, written notice of the default, unless excused by reason of Uncontrollable Forces in accordance with Article X of this Agreement or unless the CAISO agrees, in writing, to an extension of the time to remedy such material default. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.
- 3.2.2 Termination by CRR Entity. In the event that the CRR Entity is no longer a CRR Holder, it may terminate this Agreement, on giving the CAISO not less than ninety (90) days' written notice; provided, however any outstanding financial right or obligation or any other obligation under the CAISO Tariff of the Candidate CRR Holder or CRR Holder that have arisen while the CRR Entity was a Candidate CRR Holder or a CRR Holder, and any provision of this Agreement necessary to give effect to such right or obligation shall survive until satisfied. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met and the CAISO files the notice of termination within sixty (60) days after receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the CRR Entity's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE IV GENERAL TERMS AND CONDITIONS

- **4.1 CRR Holder Requirements.** The CRR Entity must register and qualify with the CAISO and comply with all terms of the CAISO Tariff applicable to Candidate CRR Holders or CRR Holders, regardless of the manner in which they acquire CRRs whether by CRR Allocation, CRR Auction, or through the Secondary Registration System.
- **4.2 CRR Holder Creditworthiness Requirements.** The CRR Entity must comply with the requirements for creditworthiness applicable to Candidate CRR Holders or CRR Holders, including the creditworthiness provisions of the CAISO Tariff and the relevant Business Practice Manual.
- 4.3 Settlement Account. The CRR Entity shall maintain at all times an account with a bank capable of Fed-Wire transfer to which credits or debits shall be made in accordance with the billing and Settlement provisions of Section 11 of the CAISO Tariff. Such account shall be the account referred to in Schedule 2 hereof or as notified by the CRR Entity to the CAISO from time to time by giving at least seven (7) days written notice before the new account becomes operational. Such changes to Schedule 2 shall not constitute an amendment to this Agreement.
- **4.4 Electronic Contracting.** All submitted applications, bids, confirmations, changes to information on file with the CAISO and other communications conducted via electronic transfer (e.g., direct computer link, FTP file transfer, bulletin board, e-mail, facsimile or any other means established by the CAISO) shall have the same legal rights, responsibilities, obligations and other implications as set forth in the terms and conditions of the CAISO Tariff as if executed in written format.
- **4.5 Agreement Subject to CAISO Tariff.** The Parties will comply with all provisions of the CAISO Tariff applicable to Candidate CRR Holders or CRR Holders. This Agreement shall be subject to the CAISO Tariff, which shall be deemed to be incorporated herein.

ARTICLE V PERFORMANCE

- **Penalties.** The CRR Entity shall be subject to all penalties made applicable to Candidate CRR Holders and CRR Holders set forth in the CAISO Tariff. Nothing in this Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the CRR Entity to oppose or protest the specific imposition by the CAISO of any FERC-approved penalty on the CRR Entity.
- **5.2 Corrective Measures.** If the CRR Entity or the CAISO fails to meet or maintain the requirements set forth in this Agreement and/or the CAISO Tariff as it pertains to this Agreement, the CAISO or the CRR Entity shall be permitted to take any of the measures, contained or referenced in the CAISO Tariff, which the Party seeking enforcement deems to be necessary to correct the situation.

ARTICLE VI COSTS

6.1 Operating and Maintenance Costs. The CRR Entity shall be responsible for all its costs incurred in connection with all its CRR related activities.

ARTICLE VII DISPUTE RESOLUTION

7.1 Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the CRR Entity and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE VIII REPRESENTATIONS AND WARRANTIES

8.1 Representation and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.

ARTICLE IX LIABILITY

9.1 Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the CRR Entity and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE X UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the CRR Entity and references to the CAISO Tariff shall be read as references to this Agreement.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

ARTICLE XI MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff and other CAISO Tariff requirements as applied to Candidate CRR Holders or CRR Holders. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand, or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the CRR Entity and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 1. A Party must update the information in Schedule 1 of this Agreement as information changes. Such changes to Schedule 1 shall not constitute an amendment to this Agreement.
- **11.3 Waivers.** Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 11.4 Governing Law and Forum. This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: (i) any court of the State of California, (ii) any federal court of the United States of America located in the State of California, except to the extent subject to the protections of the Eleventh Amendment of the United States Constitution or, (iii) where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 11.5 Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- **11.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.

11.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

11.8 [NOT USED]

- 11.9 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing herein shall be construed as affecting in any way the right of the CAISO to make unilateral application to FERC for a change in the rates, terms, and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the CRR Entity shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein. The standard of review the Commission shall apply when acting upon proposed modifications to this Agreement by the CAISO shall be the "just and reasonable" standard of review rather than the "public interest" standard of review. The standard of review the Commission shall apply when acting upon proposed modifications to this Agreement by the Commission's own motion or by a signatory other than the CAISO or non-signatory entity shall also be the "just and reasonable" standard of review. Schedules 1 and 2 are provided for informational purposes and revisions to those schedules do not constitute a material change in the Agreement warranting Commission review.
- **11.10 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

By: Name: Title: Date:_____ [Name of CRR Entity] Ву:____ Name: <u>Title:</u>

California Independent System Operator Corporation

Date:

SCHEDULE 1

NOTICES [Section 11.2]

CRR Entity

Name of Primary	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No.	

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

Original Sheet No. 11160

CAISO

Name of Primary
Representative:
Title:
Address:
City/State/Zip Code:
Email address:
Phone:
=ax:
Name of Alternative Representative:
Fitle:
Address:
City/State/Zip Code:
Email address:
Phone:
Fax:

SCHEDULE 2

SETTLEMENT ACCOUNT

[SECTION 4.3]

CRR Entity Account Information	
Settlement Account No:	
Title:	
Sort Code:	
Bank:	

Effective: March 31, 2008

CAISO TARIFF APPENDIX B.12 Pro Forma MSS Aggregator CRR Entity Agent Agreement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

AND

[METERED SUBSYSTEM AGGREGATOR]

MSS AGGREGATOR CRR ENTITY AGENT AGREEMENT

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 21, 2007 Effective: March 31, 2008

MSS AGGREGATOR CRR ENTITY AGENT AGREEMENT

THIS AGREEMENT is dated this _____ day of _____, ___, and is entered into, by and

between:	
(1)	[INSERT NAME OF MSS AGGREGATOR], a [INSERT TYPE OF ENTITY], having its registered and principal place of business located at [INSERT ADDRESS], acting as the agent on behalf of the following principals: [INSERT NAMES OF MSS OPERATOR LSES], all of which are MSS Operators and Load Serving Entities, ("MSS Operators") pursuant to the terms of that certain [INSERT TITLE OF MSS AGGREGATOR AGREEMENT] ("MSSAA") dated (the "CRR Entity Agent");
and	
(2)	California Independent System Operator Corporation, a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "CAISO").
The CRR E	entity Agent and the CAISO are hereinafter referred to individually as a "Party" and collectively as a."
Whereas:	

- A. The CAISO Tariff provides that any entity that holds or intends to hold CRRs must register and qualify with the CAISO and comply with the terms of the CAISO Tariff (either directly or through its agent), regardless of whether they are to acquire CRRs through the CRR Allocation or CRR Auction, or through the Secondary Registration System.
- B. The CRR Entity Agent pursuant to the terms of the MSSAA is authorized by the aggregated MSS Operators to act on the behalf of the MSS Operators with regard to matters relating to CRRs, including, but not limited to, allowing the CRR Entity Agent to participate in the CRR nomination process on behalf of the MSS Operators, to accept financial responsibility under this Agreement, to perform settlement functions, and to comply with CAISO Tariff requirements.
- C. The CRR Entity Agent has completed the Candidate CRR Holder application process on behalf of its aggregated MSS Operators and pursuant to the terms of the MSSAA is eligible to participate on behalf of the MSS Operators in the CRR Allocation or CRR Auction or register through the Secondary Registration System on behalf of the MSS Operators. However, the CRR Entity Agent will not hold title to or ownership of any CRRs issued to any of its aggregated MSS Operators through the CRR Allocation, CRR Auction, or Secondary Registration System processes. Rather, the CRR Entity Agent will hold title for the CRRs allocated to the individual MSS Operator's Load in trust on behalf of the MSS Operator.
- D. The CAISO Tariff further provides that any entity that wishes to participate in the CRR Allocation or CRR Auction or register as a CRR Holder through the Secondary Registration System must meet all of the Candidate CRR Holder requirements and creditworthiness provisions in the CAISO Tariff and the relevant Business Practice Manual, including demonstration of its ability to accommodate the financial responsibility associated with holding CRRs.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

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- E. The aggregated MSS Operators desire to act through the CRR Entity Agent to comply with all requirements referenced in part D, above, in order to obtain CRRs through the CRR Allocation, CRR Auction, or Secondary Registration System.
- F. The CRR Entity Agent, on behalf of its aggregated MSS Operators, wishes to undertake such necessary tasks and requirements set forth herein to comply with the applicable provisions of the CAISO Tariff in order to allow the MSS Operators to participate in the CRR Allocation, CRR Auction, and Secondary Registration System processes.
- **G.** The Parties are entering into this Agreement in order to establish the terms and conditions pursuant to which the CAISO and the CRR Entity Agent will discharge their respective duties and responsibilities under the CAISO Tariff.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

ARTICLE I DEFINITIONS AND INTERPRETATION

- **1.1 Master Definitions Supplement.** All terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement in Appendix A of the CAISO Tariff, unless otherwise defined herein.
- **1.2** Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:
 - (a) if there is any inconsistency between this Agreement and the CAISO Tariff, the CAISO Tariff will prevail to the extent of the inconsistency;
 - (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) "includes" or "including" shall mean "including without limitation";
 - (e) references to a Section, Article, or Schedule shall mean a Section, Article, or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented, or restated through the date as of which such reference is made;
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced, or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization, or other entity, in each case whether or not having separate legal personality;
 - (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;

- (j) any reference to a day, week, month, or year is to a calendar day, week, month, or year; and
- (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

ARTICLE II ACKNOWLEDGEMENTS OF CRR ENTITY AGENT AND CAISO

2.1 Scope of Application to Parties. The CRR Entity Agent and CAISO acknowledge that all MSS Aggregators that are authorized by their aggregated MSS Operators to act as the agent of those MSS Operators in undertaking all obligations and responsibilities of Candidate CRR Holders or CRR Holders must sign this Agreement in accordance with section 4.10.1.9.1 of the CAISO Tariff.

ARTICLE III TERM AND TERMINATION

3.1 Effective Date. This Agreement shall be effective as of the later of the date it is executed by both Parties or the date accepted for filing and made effective by FERC, if such FERC filing is required, and shall remain in full force and effect until terminated pursuant to Section 3.2 of this Agreement.

3.2 Termination

3.2.1 Termination by CAISO. Upon notice that the agency relationship between all of the aggregated MSS Operators and the CRR Entity Agent has terminated, including any notice that the MSSAA has terminated, the CAISO may terminate this Agreement by giving written notice to the CRR Entity Agent of termination. Further, subject to Article V, the CAISO may terminate this Agreement by giving written notice to the CRR Entity Agent of termination in the event that the CRR Entity Agent commits any material default under this Agreement and/or the CAISO Tariff as it pertains to this Agreement which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given, to the CRR Entity Agent, written notice of the default, unless excused by reason of Uncontrollable Forces in accordance with Article X of this Agreement or unless the CAISO agrees, in writing, to an extension of the time to remedy such material default. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

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3.2.2 Termination by CRR Entity Agent. In the event that the CRR Entity Agent is no longer a CRR Holder as trustee for any or all of its aggregated MSS Operators, the CRR Entity Agent may terminate this Agreement, on giving the CAISO not less than ninety (90) days' written notice: provided, however, any outstanding financial right or obligation or any other obligation under the CAISO Tariff of the Candidate CRR Holder or CRR Holder (regardless of whether such obligation shall be borne by an aggregated MSS Operator or the CRR Entity Agent) that has arisen while the CRR Entity Agent was a Candidate CRR Holder or a CRR Holder as trustee for any or all of its MSS Operators, and any provision of this Agreement necessary to give effect to such right or obligation, shall survive until satisfied. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met and the CAISO files the notice of termination within sixty (60) days after receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon ninety (90) days after the CAISO's receipt of the CRR Entity Agent's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE IV GENERAL TERMS AND CONDITIONS

- 4.1 CRR Holder Requirements. The CRR Entity Agent acting on behalf of its aggregated MSS Operators must register and qualify on behalf of the MSS Operators with the CAISO and comply with all terms of the CAISO Tariff applicable to Candidate CRR Holders or CRR Holders, regardless of the manner in which it acquires the CRRs on behalf of its aggregated MSS Operators, whether by CRR Allocation or CRR Auction, or through the Secondary Registration System. The CRR Entity Agent shall participate in the CRR nomination process on an aggregated basis on behalf of each of its aggregated MSS Operators on the basis of that individual MSS Operator's Load ratio share set forth in Schedule 3. The CAISO shall allocate CRRs to each individual MSS Operator based on its Load ratio share set forth in Schedule 3, which CRRs will be held in the aggregate by the CRR Entity Agent on behalf of its aggregated MSS Operators. The CRR Entity Agent acknowledges and agrees that it shall not hold title to or ownership of any of the CRRs of its aggregated MSS Operators. Ownership and title of any obtained CRRs shall be held in trust by the CRR Entity Agent on behalf of the applicable MSS Operator in accordance with each MSS Operator's Load share ratio as set forth in Schedule 3.
- **4.2 CRR Holder Creditworthiness Requirements.** The CRR Entity Agent acting on behalf of its aggregated MSS Operators must comply with the requirements for creditworthiness applicable to Candidate CRR Holders or CRR Holders, including the creditworthiness provisions of the CAISO Tariff and the relevant Business Practice Manual.
- 4.3 Settlement Account. The CRR Entity Agent on behalf of its aggregated MSS Operators shall maintain at all times an account with a bank capable of Fed-Wire transfer to which credits or debits shall be made in accordance with the billing and Settlement provisions of Section 11 of the CAISO Tariff. Such account shall be the account referred to in Schedule 2 hereof or as notified by the CRR Entity Agent to the CAISO from time to time by giving at least seven (7) days written notice before the new account becomes operational. Such changes to Schedule 2 shall not constitute an amendment to this Agreement.

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- 4.4 CRR Entity Agent Responsibility for MSS Operator Load Share Ratio. The CRR Entity Agent shall track each aggregated MSS Operator's Load share ratio of CRRs separately as set forth in Schedule 3 and shall be solely responsible for tracking such allocations. The CRR Entity Agent acknowledges and agrees that CAISO shall have no responsibility with regard to such pro rata allocations of CRRs as set forth in Schedule 3. The CAISO shall issue CRRs allocated to the aggregated MSS Operators in aggregate to the CRR Entity Agent, and the CRR Entity Agent shall be solely responsible for ensuring the proper allocation of such CRRs to each aggregated MSS Operator. In the event the MSS Operator and CRR Entity Agent aggregation or agency relationship terminates, the CRR Entity Agent shall be solely responsible for ensuring that the appropriate pro rata share of every CRR Source is properly assigned to the applicable MSS Operator.
- 4.5 Provision of Evidence of CRR Entity Agent Authority. The CRR Entity Agent shall provide the CAISO with a copy of the MSSAA or other sufficient evidence to assure the CAISO of its authority to act as agent on behalf of its aggregated MSS Operators with regard to the matters addressed in this Agreement. The CRR Entity Agent shall provide the CAISO with the contact name, address, e-mail address, and phone number of an individual representative of each of its aggregated MSS Operators whom the CAISO may contact regarding matters addressed in this Agreement. The CRR Entity Agent shall immediately notify the CAISO in writing of any revision to the terms of the MSSAA that affects its authority to act as agent on behalf of its aggregated MSS Operators or any other change in its relationship with any of its aggregated MSS Operators.
- **4.6 Electronic Contracting.** All submitted applications, bids, confirmations, changes to information on file with the CAISO and other communications conducted via electronic transfer (e.g., direct computer link, FTP file transfer, bulletin board, e-mail, facsimile or any other means established by the CAISO) shall have the same legal rights, responsibilities, obligations and other implications as set forth in the terms and conditions of the CAISO Tariff as if executed in written format.
- **4.7 Agreement Subject to CAISO Tariff.** The Parties will comply with all provisions of the CAISO Tariff applicable to Candidate CRR Holders or CRR Holders. This Agreement shall be subject to the CAISO Tariff, which shall be deemed to be incorporated herein.

ARTICLE V PERFORMANCE

- 5.1 Penalties. The CRR Entity Agent on behalf of its aggregated MSS Operators shall be subject to all penalties made applicable to Candidate CRR Holders and CRR Holders set forth in the CAISO Tariff. Nothing in this Agreement, with the exception of the provisions relating to the CAISO ADR Procedures, shall be construed as waiving the rights of the CRR Entity Agent on behalf of its aggregated MSS Operators to oppose or protest the specific imposition by the CAISO of any FERC-approved penalty on the CRR Entity Agent or any MSS Operator.
- **5.2 Corrective Measures.** If the CRR Entity Agent or the CAISO fails to meet or maintain the requirements set forth in this Agreement and/or the CAISO Tariff, the CAISO or the CRR Entity Agent shall be permitted to take any of the measures, contained or referenced in the CAISO Tariff as it pertains to this Agreement, which the Party seeking enforcement deems to be necessary to correct the situation.

ARTICLE VI COSTS

Operating and Maintenance Costs. The CRR Entity Agent shall be responsible for all its costs and any costs of its aggregated MSS Operators incurred in connection with all its CRR related activities.

ARTICLE VII DISPUTE RESOLUTION

7.1 Dispute Resolution. The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to one or more aggregated MSS Operators and/or the CRR Entity Agent (as applicable) and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE VIII REPRESENTATIONS AND WARRANTIES

8.1 Representation and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law, and that the proper agreements providing for the CRR Entity Agent relationship with each aggregated MSS Operator, including, but not limited to, the MSSAA, are in full force and effect.

ARTICLE IX LIABILITY

9.1 Liability. The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to one or more aggregated MSS Operators and/or the CRR Entity Agent (as applicable), and references to the CAISO Tariff shall be read as references to this Agreement. Further, in reliance on the agency relationship between the CRR Entity Agent and each aggregated MSS Operator, CAISO shall treat the CRR Entity Agent as the MSS Operators and shall not be liable to any aggregated MSS Operator for any claims, liabilities, or errors arising from this agency relationship, including, but not limited to, CRR ownership or Settlement Accounts, unless the CAISO causes such claim(s), liability(ies) or error(s) due to its gross negligence or willful conduct.

ARTICLE X UNCONTROLLABLE FORCES

10.1 Uncontrollable Forces Tariff Provisions. Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to one or more aggregated MSS Operators and/or the CRR Entity Agent (as applicable) and references to the CAISO Tariff shall be read as references to this Agreement.

ARTICLE XI MISCELLANEOUS

- 11.1 Assignments. Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff and other CAISO Tariff requirements as applied to Candidate CRR Holders or CRR Holders. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 11.2 Notices. Any notice, demand, or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the CRR Entity Agent and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 1. A Party must update the information in Schedule 1 of this Agreement as information changes. Such changes to Schedule 1 shall not constitute an amendment to this Agreement.
- **11.3 Waivers.** Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 11.4 Governing Law and Forum. This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: (i) any court of the State of California, (ii) any federal court of the United States of America located in the State of California, except to the extent subject to the protections of the Eleventh Amendment of the United States Constitution, or (iii) where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- **11.5** Consistency with Federal Laws and Regulations. This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- **11.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 11.7 Severability. If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

11.8 [NOT USED]

- 11.9 Amendments. This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing herein shall be construed as affecting in any way the right of the CAISO to make unilateral application to FERC for a change in the rates, terms, and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder, and the CRR Entity Agent shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein. The standard of review the Commission shall apply when acting upon proposed modifications to this Agreement by the CAISO shall be the "just and reasonable" standard of review rather than the "public interest" standard of review. The standard of review the Commission shall apply when acting upon proposed modifications to this Agreement by the Commission's own motion or by a signatory other than the CAISO or non-signatory entity shall also be the "just and reasonable" standard of review. Schedules 1 and 2 are provided for informational purposes and revisions to those schedules do not constitute a material change in the Agreement warranting Commission review.
- **11.10 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

Ву:	
Name:	
IINCED	T NAME OF CDD ENTITY ACENTS
IIIASEK	T NAME OF CRR ENTITY AGENT]
Ву:	
Name:	
Title:	
Date:	

SCHEDULE 1

NOTICES [Section 11.2]

CRR Entity Agent	
Name of Primary	
Representative:	
Γitle:	
Company:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	
Name of Alternative	
Representative:	
Title:	
Company:	
Address:	
City/State/Zip Code:	
Email Address:	
Phone:	
Fax No:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF FOURTH REPLACEMENT VOLUME NO. II

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CAISO

Name of Primary	
Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
Fax:	
Name of Alternative Representative:	
Title:	
Address:	
City/State/Zip Code:	
Email address:	
Phone:	
Fax:	

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 21, 2007 Effective: March

Effective: March 31, 2008

SCHEDULE 2

SETTLEMENT ACCOUNT

[Section 4.3]

CRR Entity Agent Account Information		
Settlement Account No:		
Title:		
Sort Code:		
Bank:		

SCHEDULE 3

[Pro Rata Load Share per MSS Operator Represented by CRR Entity Agent]

[Section 4.4]

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 21, 2007 Effective: March 31, 2008